

Kodak

i1200/i1300 Series Scanners

User's Guide



Contents

| | |
|---|-----------|
| 1 Introduction | 1 |
| Scanner features | 2 |
| Safety information | 3 |
| User precautions | 3 |
| Safety and regulatory agency approvals | 4 |
| Environmental information | 4 |
| European Union | 4 |
| Power system | 5 |
| Acoustic emission | 5 |
| EMC statements | 5 |
| United States | 5 |
| Korea | 6 |
| Japan | 6 |
| 2 Getting Started | 7 |
| What's in the box | 7 |
| System requirements | 8 |
| Installing the scanner | 8 |
| Installing the <i>Kodak Driver Software</i> | 8 |
| Connecting the power cord to the scanner | 11 |
| Connecting the USB cable | 12 |
| Attaching the output tray | 12 |
| Turning on the scanner and finalizing <i>Kodak Driver Software</i> installation | 13 |
| Installing application software | 14 |
| Scanner components | 15 |
| Locking the scanner | 17 |
| 3 Using the Scanner | 18 |
| Turning the scanner on and off | 18 |
| Scanner positions | 18 |
| Tilting the scanner body | 19 |
| Adjusting the output tray | 20 |
| Adjusting the input tray | 21 |
| Adjusting the side guides | 22 |
| Start and stop scanning | 22 |
| Document preparation | 23 |
| Verifying your scanner installation | 24 |
| Viewing test images | 26 |
| Understanding your scanning environment | 26 |
| Application software | 26 |
| Smart Touch functionality | 27 |
| Configuration dialog box | 28 |
| Scan To settings | 29 |
| Scan As settings | 31 |
| Configuring function numbers | 32 |
| Smart touch Edit window | 34 |
| Using function numbers | 36 |
| Scanning your documents | 37 |
| Automatic feeding | 38 |
| Manual feeding | 38 |

| | |
|--|-----------|
| 4 Image Processing | 39 |
| Overview | 39 |
| Starting the Scan Validation Tool | 39 |
| Scan Validation Tool dialog box | 40 |
| Using the TWAIN datasource | 41 |
| Terminology and features | 41 |
| How do I begin? | 41 |
| Selecting Image settings | 42 |
| Selecting Device settings | 44 |
| The main <i>Kodak</i> Scanner window | 45 |
| The Image Settings window | 47 |
| Preview window | 47 |
| Toolbar icons | 48 |
| General tab | 49 |
| Size tab | 50 |
| Adjustments tab: black and white | 52 |
| Adjustments tab: color or grayscale | 55 |
| Enhancements tab | 56 |
| Advanced options | 58 |
| Content Settings tab | 60 |
| Setting up automatic color detection - Example 1 | 62 |
| Setting up multiple images for each side of a document - Example 2 | 64 |
| Using different settings for each side of a document - Example 3 | 65 |
| Images for each side of a document - Example 4 | 66 |
| The Device Settings window | 67 |
| General tab | 67 |
| Multifeed tab | 68 |
| The Diagnostics window | 70 |
| General diagnostics tab | 70 |
| Debug tab | 71 |
| Logs tab | 72 |
| Using the ISIS Driver | 73 |
| The main ISIS Driver window | 73 |
| Main tab | 74 |
| Layout tab | 77 |
| Image Processing tab | 78 |
| Scanner tab | 80 |
| Auto Color Detect tab | 82 |
| Adjustments tab | 84 |
| Dropout tab | 86 |
| Log tab | 87 |
| About tab | 87 |
| Defining the Scan area | 88 |
| Scan Area dialog box | 89 |
| 5 Maintenance | 90 |
| Cleaning the scanner | 90 |
| Opening the scanner cover | 90 |
| Cleaning the rollers and transport | 91 |
| Cleaning or replacing the separation module | 91 |
| Replacing the separation module tires | 93 |
| Cleaning or replacing the feed module | 95 |
| Replacing the tires on the feed module | 97 |
| Vacuuming the scanner | 99 |
| Cleaning the imaging area | 99 |
| Supplies and consumables | 100 |
| Accessories | 100 |

| | |
|---|------------|
| 6 Troubleshooting | 101 |
| Indicator lights and error codes | 101 |
| Clearing a document jam | 102 |
| Problem solving | 103 |
| Error code listing | 104 |
| Appendix A Specifications | 106 |
| Appendix B Feature Map | 107 |
| Appendix C Warranty - US and Canada only | 109 |
| Limited warranty on <i>Kodak</i> Scanners | 109 |
| Warranty exclusions | 110 |
| Installation Warning and Disclaimer | 111 |
| How to obtain limited warranty service | 111 |
| Packaging and shipping guidelines | 112 |
| Return procedure | 112 |
| Customer responsibility | 112 |
| Warranty Service descriptions | 112 |
| On-site service | 113 |
| AUR | 113 |
| Depot service | 114 |
| Important restrictions | 115 |
| Contacting Kodak | 115 |

1 Introduction

The *Kodak i1200/i1300 Series Scanners* are compact document scanners perfect for workgroups and other decentralized applications. All scanner models have a tilt feature that allows you to tilt the scanner body and position the input and output trays in a variety of angles to meet your scanning needs. In addition, the tilt feature allows scanning in tight spaces when space is limited and stores easily when not in use. Also included with each model is smart touch functionality which allows you to send your documents to email, print or various applications with a touch of a button. The i1200/i1300 Scanners also can support the optional A4 tethered flatbed accessory.

The following models are available:

Kodak i1210 Scanner — a simplex scanner which provides scanning at up to 30 pages per minute in color, grayscale or black and white at 200 dpi.

Kodak i1220 Scanner — a duplex scanner which provides scanning at up to 30 pages per minute in color, grayscale or black and white at 200 dpi.

Kodak i1310 Scanner — a simplex scanner which provides color scanning at up to 30 pages per minute and black and white and grayscale scanning at up to 60 pages per minute at 200 dpi.

Kodak i1320 Scanner — a duplex scanner which provides color scanning at up to 30 pages per minute and black and white and grayscale scanning at up to 60 pages per minute at 200 dpi.

For support of most document scanning software applications, a TWAIN datasource and ISIS Driver are included with the *Kodak i1200/i1300 Series Scanners*. These drivers provide all of the innovative image processing you can expect from Kodak.



This User's Guide provides information and procedures for the *Kodak i1200/i1300 Series Scanners*. The information in this guide is for use with all scanner models unless otherwise noted.

Scanner features

- Lightweight and portable
- Small, compact size
- Tilt-A-Scan feature provides a vertical position for ad-hoc scanning in a compact footprint and tilt positions for production scanning
- Smart touch functionality allows you to send documents to file, email, printers, fax printers or desktop applications that support TIFF, JPEG, RTF, PDF and searchable PDF
- Scans up to 1500 pages per day using the i1200 Series Scanners or 3000 pages per day using the i1300 Series Scanners
- Scans up to 21.6 x 86 cm / 8.5 x 34 inches using the automatic document feeder or as small as 50 x 63 mm / 2.0 x 2.5 inches
- An optional A4 tethered flatbed accessory provides added scanning capability for exception documents and easily connects and disconnects to the scanner
- Choose color, black and white, grayscale, simultaneous black and white and grayscale, or simultaneous black and white and color
- Multi-feed detection including ultrasonic technology
- Easy cleaning and maintenance
- Easily replaceable feed and separation modules
- Optical resolutions at 600 dpi (1200 dpi using the flatbed)
- Output resolutions from 75 to 1200 dpi
- Advanced software image processing including: automatically detect and straighten, iThresholding, ATP, auto orientation, background color smoothing, add or remove borders, auto color detect and searchable PDF output
- High speed USB 2.0 interface
- Energy star compliant

Safety information

CAUTION: The scanner and power supply must only be used indoors in a dry location.

- When placing the scanner, make sure that the electrical power outlet is located within 1.52 metres (5 feet) of the scanner and is easily accessible.
- Material Safety Data Sheets (MSDS) for chemical products are available on the Kodak website at: www.kodak.com/go/msds. When accessing the MSDSs from the website, you will be required to provide the catalog number of the consumable you want the Material Safety Data Sheet for. See the section entitled, "Supplies and consumables" later in this guide for supplies and catalog numbers.

User precautions

Users and their employer need to observe the common sense precautions applicable to the operation of any machinery. These include, but are not limited to, the following:

- Do not wear loose clothing, unbuttoned sleeves, etc.
- Do not wear loose jewelry, bracelets, bulky rings, long necklaces, etc.
- Hair should be kept short, using a hair net if needed, or by tying long hair up in a bundle.
- Remove all loose objects from the area that could be drawn into the machine.
- Follow the recommended Kodak cleaning procedures. Do not use air, liquid or gas spray cleaners. These cleaners only displace the dust, dirt or debris to another location within the scanner, which could cause the scanner to malfunction.

Supervisors should review their practices and make the compliance with these precautions a part of the job description for the operator of the *Kodak i1200/i1300 Series Scanners* and any other mechanical devices.

Safety and regulatory agency approvals

The *Kodak i1200/i1300 Series Scanners* conform to applicable national and international product safety and electronic emission regulatory requirements. This includes, but is not limited to, the following:

| Country or Region | Safety Approval | Safety Mark | Electromagnetic Compatibility | EMC Mark |
|-----------------------|---------------------------|--------------|--|--------------|
| Australia/New Zealand | | | AS/NZS CISPR 22 Class B | C-Tick |
| Canada | CAN/CSA-C22.2 No. 60950-1 | c TUV us | Canada ICES - 003 Issue 3 Class B | |
| China | GB4943 | CCC "S&E" | GB 9254 Class B GB 17625.1 Harmonics | CCC "S&E" |
| European Union | EN 60950-1 | CE TUV GS | EN 55022 ITE Emissions Class B EN61000-3-2 Powerline harmonics EN 61000-3-3 Flicker EN 55024 ITE Immunity | CE |
| International | IEC 60950-1 | | CISPR 22 Class B | |
| Japan | | | VCCI Class B | VCCI |
| Taiwan | CNS 14336 | BSMI | CNS 13438 Class B | BSMI |
| United States | UL 60950-1 | c TUV us | CFR 47 Part 15 Subpart B FCC Class B | FCC |

Environmental information

- The *Kodak i1200/i1300 Series Scanners* are designed to meet worldwide environmental requirements.
- Guidelines are available for the disposal of consumable items that are replaced during maintenance or service; follow local regulations or contact Kodak locally for more information.
- For disposal or recycling information, contact your local authorities or, in the USA, visit the Electronics Industry Alliance website: www.eiae.org.
- The product packaging is recyclable.
- Parts are designed for reuse or recycling.
- The *Kodak i1200/i1300 Series Scanners* are Energy Star compliant and is shipped from the factory with the default time set to 15 minutes.

European Union



This symbol indicates that when the last user wishes to discard this product, it must be sent to appropriate facilities for recovery and recycling. Please contact your local Kodak representative or refer to www.kodak.com/go/recycle for additional information on the collection and recovery programs available for this product.

Power system

Power system connection

This product is also designed for Norwegian IT power system with phase-to-phase voltage 230V.

Netzanschluß

Das Gerät ist auch für die Verwendung im norwegischen IT-Stromsystem mit einer Leiterspannung von 230 V geeignet.

Connexion aux systèmes d'alimentation électrique

Ce produit est également conçu pour les systèmes norvégiens d'alimentation électrique informatique, dont la tension par phase est de 230 V.

Acoustic emission

Maschinenlärminformationsverordnung – 3, GSGV
Der arbeitsplatzbezogene Emissionswert beträgt <70 db(A).

[Machine Noise Information Ordinance — 3, GSGV
The operator-position noise emission value is <70 dB(A).]

EMC statements

United States

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for additional suggestions.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulation.

Korea

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

As this equipment has obtained EMC registration for household use, it can be used in any area including residential areas.

Japan

This is a Class B product based on the standard of the Voluntary Control Council for interference by information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

2 Getting Started

What's in the box

Before you begin open the box and check the contents:

- *Kodak i1210 or i1220 Scanner or Kodak i1310 or i1320 Scanner*
- Output tray
- USB 2.0 cable
- Power supply
- AC power cord bundles
- Sample Cleaning Kit
- Welcome Folio which includes:
 - Bundled installation and application CDs
 - Registration sheets
 - Printed User's Guide, English
 - Service Contact sheets
 - Quick Installation Guide
 - Quick Tips Guide
 - Miscellaneous flyers

Kodak provides these applications with *Kodak i1200/i1300 Scanners*:

- **Kodak Capture Software, Lite** installs in minutes and helps automate your capture workflow for maximum performance. It allows scanning, viewing, and storing of images in standard image file formats (TIFF, JPEG, and PDF), for practically any workgroup application.
- **Nuance ScanSoft PaperPort 10 Software** is an easy way to turn piles of paper and photos into organized digital PDF files that you can quickly find, use and share. PaperPort provides a unique visual desktop that displays small thumbnails of your documents for fast browsing of what you need. End the frustration of looking for paper or digital documents by searching for words inside your files with the exclusive All-in-One Search™. Save time and have the security of knowing that important documents and photos will never be lost. PaperPort is perfect for your home or small office and all your related documents.
- **Nuance ScanSoft OmniPage Pro 14 Software** will help you reach new levels of productivity by eliminating retyping. Precision OCR technology, advanced layout analysis and powerful editing tools allow you to quickly turn paper and PDF files into editable electronic documents that look just like the original — complete with text, tables and graphics. Robust new tools enable you to turn text documents into audio books and add digital signatures to your electronic documents. Save time and money like never before with the world's most powerful document conversion application.

System requirements

Following is the minimum recommended system configuration to run *Kodak i1200/i1300 Series Scanners*.

- Recommended PC configuration:
 - For documents up to 356 mm (14 in.) long up to 400 dpi: Pentium IV, 3.2 GHz processor, 512 MB RAM
 - For documents up to 660 mm (26 in.) long up to 400 dpi: Pentium IV, 3.2 GHz processor, 1 GB RAM
 - For longer documents/higher resolutions: Pentium IV, 3.2 GHz processor, 3 GB RAM
- USB port 2.0 (compatible with USB 1.1 but at slower speeds)
- Microsoft Windows XP SP2, (supports USB 2.0); Windows XP 64-bit edition and Windows 2000 Professional (supports USB 2.0)
- 100 MB free hard disk space
- CD-ROM drive

Installing the scanner

Install the scanner in the following order:

1. Install the *Kodak Driver Software* on the PC.
2. Connect the power cord to the scanner.
3. Connect the USB cable between your scanner and PC.
4. Attach the output tray.
5. Turn on scanner power and finalize the *Kodak Driver Software* installation.
6. Verify your scanner installation (see Chapter 3).
7. Install other supplied capture applications (See Chapter 3).

Installing the *Kodak Driver Software*

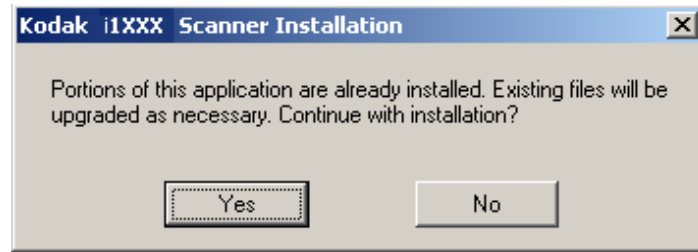
Install the driver software **before** connecting the scanner to your PC.

1. Insert the installation CD in the CD-ROM drive. The installation program starts automatically.

NOTES:

- If the CD does not start automatically, open the My Computer icon on your desktop. Double-click the icon for your CD-ROM drive, then double-click on Setup.exe.
 - The i1200 and i1300 Series Scanners have separate installation CDs. If you have both scanners in your environment, be sure to use the correct installation CD.
2. Select **Install Scanner Software**.

3. The *Kodak i1200/i1300 Series Scanner Installation* window will be displayed.



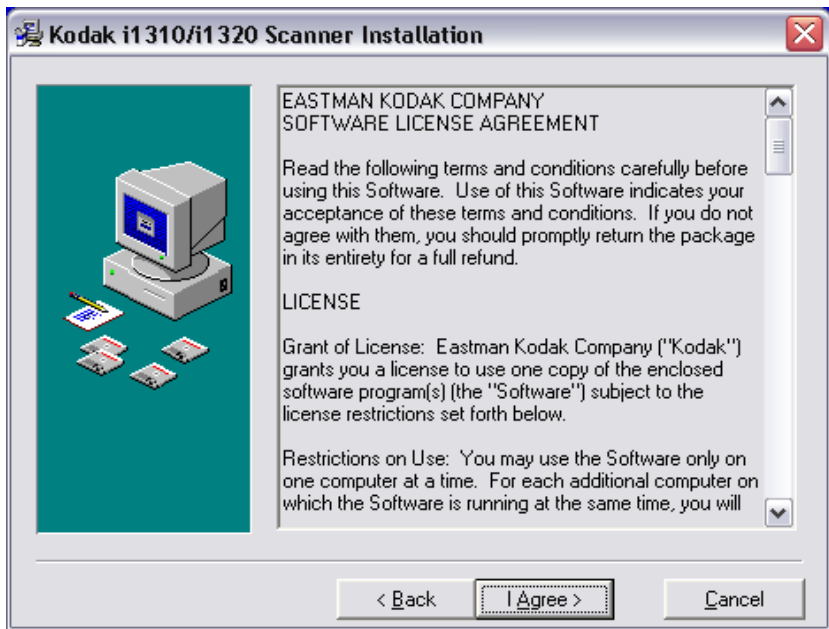
NOTE: This window may or may not be displayed depending upon what was previously installed on your computer.

4. Click **Yes**. The Welcome window will be displayed.

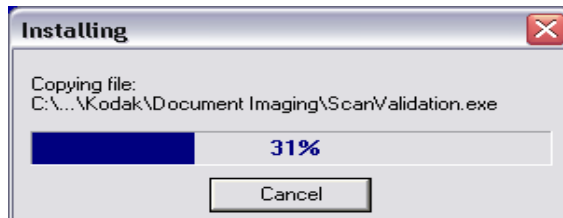


5. Click **Next**.

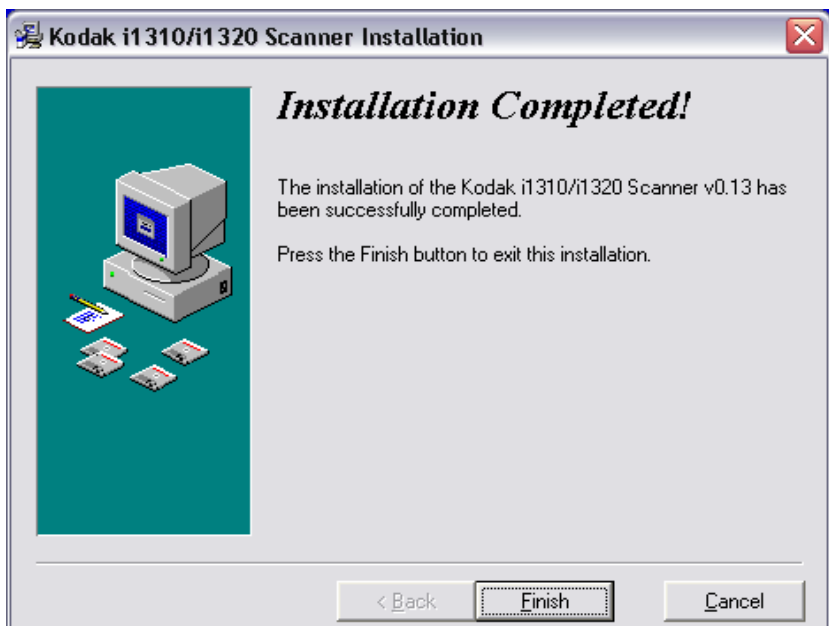
The Software License Agreement window will be displayed.



6. After reading the agreement, click **I Agree** to continue. The installation will start.



7. When the installation is complete, the Installation Completed window will be displayed.



8. Click **Finish**.

Connecting the power cord to the scanner

Use only the power supply that was provided with the *Kodak i1200/i1300 Series Scanner*. Do not substitute another power supply model or another manufacturer's power supply.

After the drivers have been installed, connect the power supply and power cord to the scanner. Make sure that the power outlet is located within 1.52 metres (5 feet) of the scanner and is easily accessible.

1. Select the appropriate AC power cord for your region from the supply of power cords packed with your scanner.
2. Attach the power cord for your power type to the power supply.



3. Plug the output power cord from the power supply into the power port on the scanner.



4. Plug the other end of the power cord into the wall outlet.

Connecting the USB cable

IMPORTANT: *If you have not installed the Kodak Driver Software, do that now before proceeding.*

The USB cable supplied with your scanner has two different ends.



1. Attach the B end of the USB cable to the scanner USB port, located on the back of the scanner.



2. Attach the A end of the USB cable to the proper USB port on your PC.

Attaching the output tray

- Slide the output tray underneath the scanner platform along the center guide.



NOTE: The output tray can be placed in a variety of positions to meet your scanning needs. See the section entitled, "Adjusting the output tray" in Chapter 3 for more information.

Turning on the scanner and finalizing *Kodak* Driver Software installation

When the USB cable and power connections have been made, and the *Kodak* Software Drivers have been properly installed, the installation will be complete when the scanner is turned on.

1. Use the power switch on the back of the scanner to turn the scanner on (I).



When you turn on the scanner, the scanner goes through an initialization process. When it is finished and ready to scan, the LED indicator will stop flashing and stay green.

NOTES:

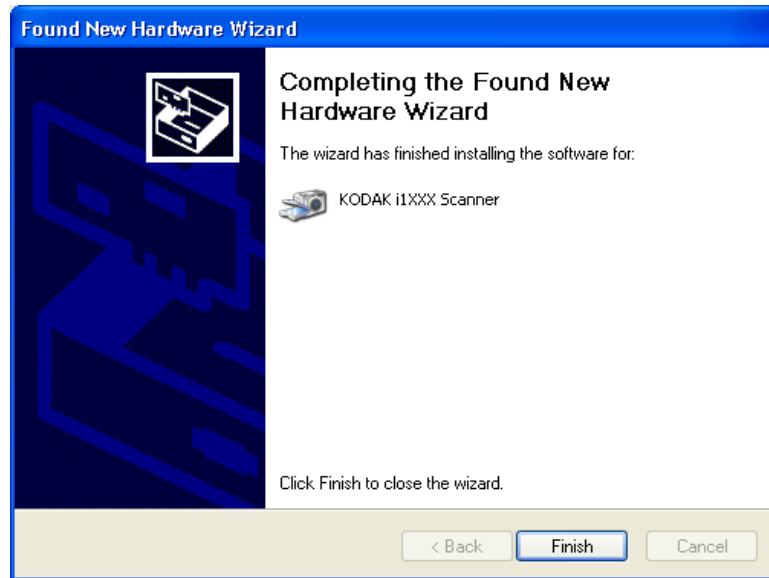
- The following windows are based on Windows XP. However, depending on the computer operating system you are using, these windows may be different.
- If a flatbed is attached, the New Hardware window may be displayed once for the scanner and once for the flatbed.

Your operating system will now auto detect the scanner.



2. Click **Next**. Kodak has successfully tested the i1200/i1300 Series Scanners with Windows XP.

The Found New Hardware window will be displayed.



3. Click **Finish**.

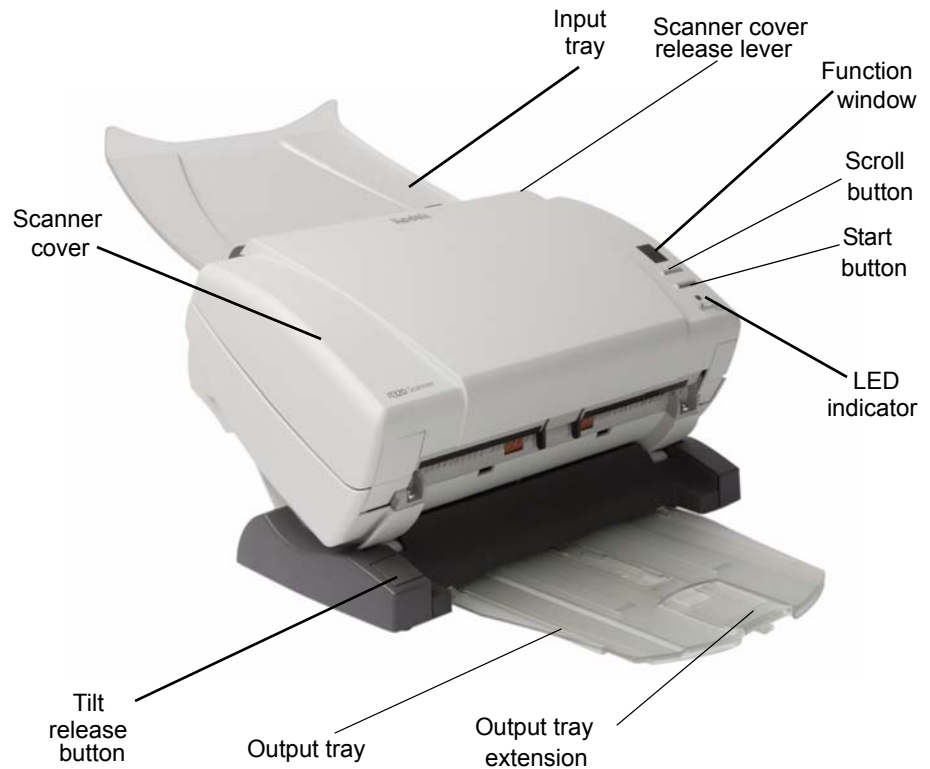
Installing application software

The *Kodak* Scan Validation Tool is available on the CDs packed with your scanner. Refer the section entitled, "Verifying your scanner installation" in Chapter 3 for installation instructions and use.

Other scanning applications are also provided on the CDs packed with your scanner (e.g., *Kodak* Capture Software Lite, Nuance ScanSoft PaperPort 10 Software, Nuance ScanSoft OmniPage Pro 14 Software). You may also use other capture applications not provided with the scanner. See the User Guides provided with these applications for instructions on how to install and use the software.

Scanner components

Front view



Scanner cover — provides access to the internal components of the scanner, such as the imaging area and the feed and separation modules.

Tilt release button — press this button to tilt the scanner body into a different position.

Output tray extension — slide this extension out when scanning documents longer than 8.5 x 11 inches (A4).

Output tray — collects the scanned documents.

Indicator LED light — illuminates or flashes indicating scanner status.

- **Steady green:** ready to scan
- **Flashing green:** waiting/Energy Star; scanning/busy

NOTE: The Start button, Scroll button and Function window are used with the smart touch functionality.

Start button — launches the selected application that is associated with the displayed number in the function window.

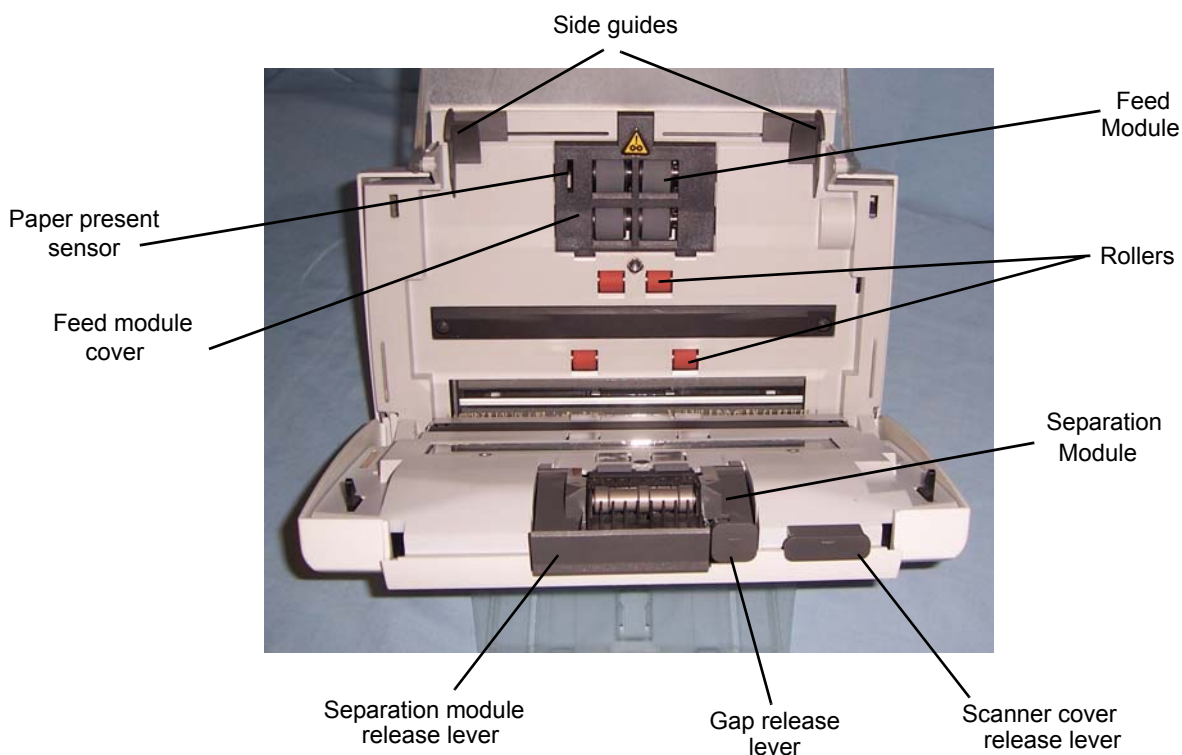
Scroll button — allows you to select or scroll through predefined functions or applications for scanning.

Function window — displays 0 through 9. These numbers correspond to a predefined function of your choice. E will be displayed if an error is encountered.

Scanner cover release lever (not shown in illustration above) — opens the scanner to allow access to the paper path for cleaning or clearing a document jam.

Input tray — holds up to 50 documents (20 lb./75 g/m²) in place.

Inside view



Side guides — slide the guides back and forth to accommodate the size of documents you are scanning.

Paper Present sensor — detects the presence of documents in the input tray.

Feed module cover — this cover needs to be removed when cleaning or replacing the feed module or feed module tires.

Separation module release lever — push the release lever down to remove the separation module for cleaning or replacement.

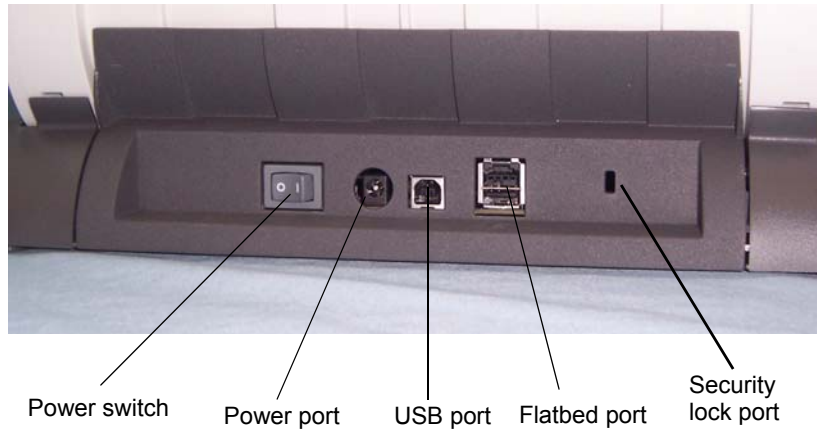
Gap release lever — allows you to manually adjust the space between the feed module and separation module for documents that require special handling.

Scanner cover release lever — opens the scanner to allow access to the paper path for cleaning or clearing a document jam.

Feed module and **Separation module** — provides smooth document feeding and separation of various sizes, thicknesses and textures of documents.

Rollers — provides smooth document feeding of various sizes, thicknesses and textures of documents.

Back view



Power switch — turns the scanner on and off.

Power port — connects the power cord to the scanner.

USB port — connects the scanner to the PC.

Flatbed port — connects the optional tethered flatbed accessory to the scanner.

Security lock port — connects a security lock to the scanner.

Locking the scanner

A security lock port is available if you want to secure your scanner. You can purchase a standard security lock (as shown below) at an office supply store.



1. Insert the lock into the back of the scanner and turn the key to lock the scanner in place.
2. Use the looped end of the cable to secure the cable and scanner to a stationary place.

3 Using the Scanner

Turning the scanner on and off

- Press the button on the back of the scanner to turn the scanner on (I) or off (O).



After you turn on the scanner, wait for it to complete the self-test. When the scanner is connected to the host PC and the self-test completes, the green indicator light will remain on and constant and the function window will display “1”.

If the scanner is not connected to the host PC and the self-test completes, the red indicator will be on and the function window will be blank.

Scanner positions

The *Kodak i1200* and *i1300* Series Scanners are equipped with a tilt feature which allows the scanner to be used in two positions. Depending upon your scanning needs, you can tilt the scanner body and position the input and output trays. The tilt feature also allows scanning in tight spaces when space is limited and stores easily when not in use. The following illustrations show the angles the scanner can be placed in. Simply press the tilt release button and tilt the scanner body into a 25- or 65-degree angle.

25-degree angle



65-degree angle



In addition to tilting the scanner body, the input and output trays can be adjusted to provide even more scanning flexibility. See the following sections for information on adjusting the input and output trays.

***IMPORTANT:** When using the tilt feature, be sure the scanner cover is closed.*

Tilting the scanner body

- Press the Tilt release button and rotate the scanner body into the desired position.



Adjusting the output tray

The output tray can be adjusted in several positions.

To remove the output tray from it's current position:

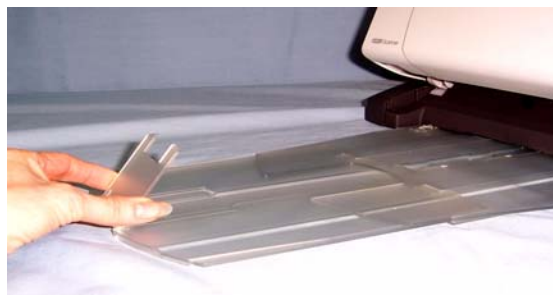
- Press down on the release tabs and pull it out of position.



- The output tray can be positioned so it lies flat or you can angle it so the back of the output tray is higher. Align the tabs on the output tray with the slots on the scanner to lock the output tray in place.



- An extender is available to accommodate long documents. Pull this extender out to the longest position when scanning documents longer than 14 inches.
- The end stop can be opened at various angles to accommodate your scanning needs.



- The output tray can be pushed all the way in or removed. This position is desirable when space is limited and you are scanning small documents.



Adjusting the input tray

You can scan documents with the input tray open or closed. Feed documents with the input tray open if you are scanning a batch of documents. Remember you can tilt the scanner body to a more upright position to save working space.



Input tray - open position



Input tray - closed position

If space is limited and you want to close the input tray, you can easily feed documents one at a time.

NOTE: The scanner cover cannot be opened when the input tray is closed.

Adjusting the side guides

The side guides can be moved in or out to accommodate document size. Adjust the side guides slightly wider than the documents you are scanning.



Start and stop scanning

Before you start scanning, make sure the scanner is on and ready for operation, which is indicated by the green indicator light being on and constant.

Scanning is controlled by software developed for your application. To start and stop scanning, refer to the documentation provided with your application software.

NOTE: Be sure that the documents in the input tray are centered in the tray and in the path of the paper present sensor.

Document preparation

- A batch of documents to be fed into the scanner must be arranged so the leading edges of all documents are aligned and centered in the input tray; this allows the feeder to introduce documents into the scanner one at a time.
- Staples and paper clips on documents may damage the scanner and documents. Damage resulting from scanning documents with staples, paper clips or other metallic objects are not covered by warranty. Remove all staples and paper clips before scanning.
- Documents should be in good condition.

Paper Types: Bond, Laser, Inkjet, Offset

NOTE: Chemically coated papers may cause excessive wear/swelling of the rollers.

Paper inks: All inks on the paper must be dry before scanning is started. This includes: Standard offset printing, Inkjet printer, Thermal transfer, Handwriting inks.

Correction Fluids: Liquid Paper®, Tipp-Ex®, Wite-out®, and other similar correction fluids should be dry before scanning is started.

Paper Weights: 34 g/m² to 413 g/m² (9 to 110 lbs.)

Maximum Document Size:

- **Automatic Document Feeder** — 215 x 863 mm (8.5 x 34 in.)
- **Flatbed** — 215 x 297 mm (8.5 x 11.69 in.)

Minimum Document Size: 63.5 x 50 mm (2.5 x 2 in.)

Verifying your scanner installation

Kodak provides a test application called the *Kodak Scan Validation Tool*. This section describes how to use this tool to perform a basic scan function which includes feeding paper and viewing captured images on your PC.

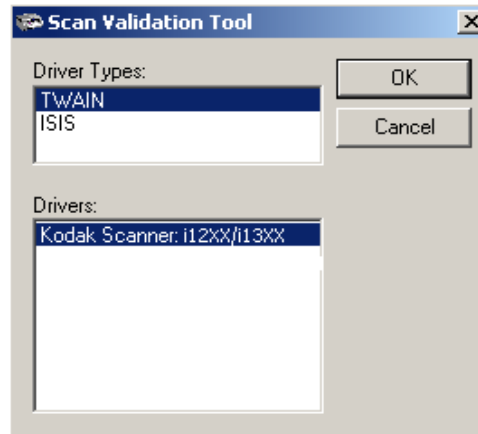
The following steps help you to verify that your scanner installation was successful. If this procedure is successful, you will be ready to use your scanner. If it is not successful, go back and review the installation procedures outlined in the section entitled, "Installing the scanner" in Chapter 2.

Before you begin, be sure the scanner is on and ready to scan.

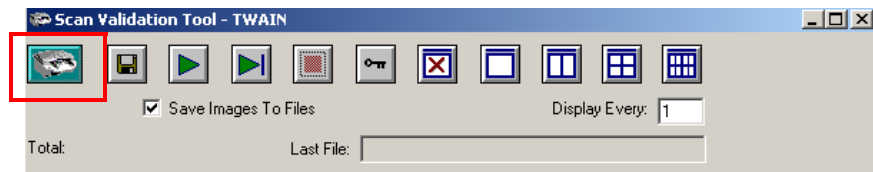


1. Select **Start>Programs>Kodak>Document Imaging>Scan Validation Tool**.

The Scan Validation Tool dialog box will be displayed.

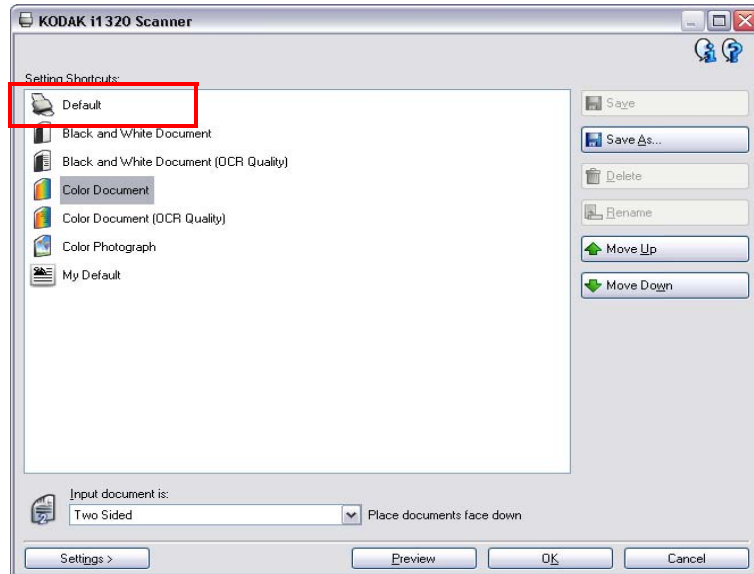


2. Select **TWAIN** for the Driver Types and **Kodak Scanner i12XX/i13XX** as the Driver. The Scan Validation Tool dialog box will be displayed.



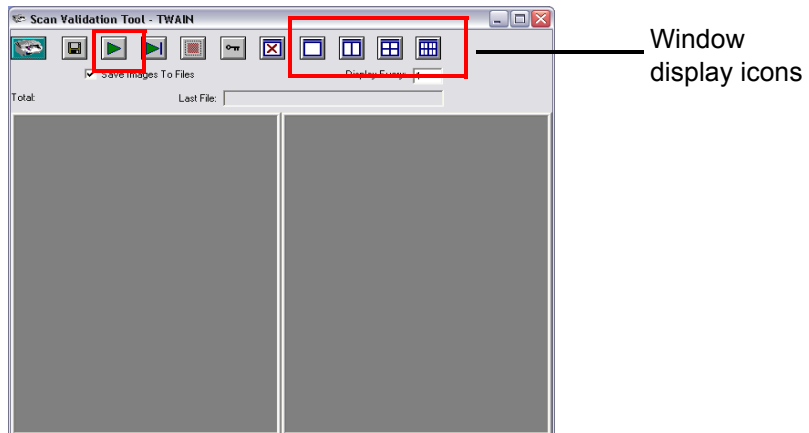
3. Click the Scanner icon.

The main Kodak Scanner window will be displayed.




NOTE: When you access the main Kodak Scanner window, refer to Chapter 4, *Image Processing* for more information on how to get started using the TWAIN datasource or ISIS driver.

4. Select **Defaults**. A confirmation message, **Reset all values to factory defaults** will be displayed.
5. Click **OK**. This resets the software to the factory-installed default settings. The factory default settings are set to capture color images.
6. Place some test documents into the input tray of the scanner.
7. Click the **Start** button on the Scan Validation Tool dialog box. The documents will be scanned and displayed in the Scan Validation Tool window. Be sure that one of the window display icons is selected, otherwise the scanned image will not be visible.



NOTE: If the scanner is in lamp saver mode, a message will be displayed that the lamps need sufficient time to warm up.

After the images have been displayed, your scanner installation verification is completed.

8. Click the Close box  to exit the Scan Validation Tool.

Viewing test images

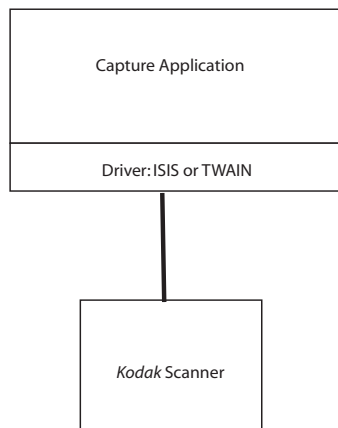
The images you scanned can be found in the TWAIN folder on the C drive. Files will be named using the following naming convention: **image0000001A.jpg** is a front image; **image0000001B.jpg** is a back image. Double-click on this file to open and view the captured image.

Because factory default settings were used, the image quality may not be optimized to meet your needs. To learn more about image processing features, see Chapter 4, *Image Processing*, or refer to your capture application documentation.

When testing has been completed, delete the test images.

Understanding your scanning environment

Now that your scanner is installed and tested, you are ready to select your production capture application. A capture application is a graphical user interface used to scan and organize electronic images. Some scanning applications are available on the CDs packed with your scanner. Capture applications will use either the ISIS driver or TWAIN datasource which are provided with your scanner as part of the *Kodak Scanner Driver Software* installation. The TWAIN datasource or ISIS driver links the scanner to your capture application.



Kodak Scanner — scans and creates an electronic image of your paper documents.

Scan Validation Tool — is the test application which allows access to all the features of the scanner and is a good way to verify that the scanner is working properly.

Capture application — receives and processes electronic images, allows you to set up image processing parameters and can provide access to the TWAIN datasource or ISIS driver graphical user interface.

ISIS driver or TWAIN datasource — links the capture application to the scanner and provides a way to organize your image processing parameters.

Application software

You may also use other capture applications. See the User's Guide provided with these applications for instructions on how to use the software.

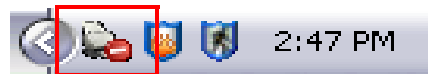
Smart touch functionality

Smart touch functionality allows you to assign commonly performed scanning tasks with the numbers (1 through 9) displayed in the function window on the scanner. Predefined tasks are installed with the scanner, however, you can configure smart touch to handle the tasks that are most important to you. You can perform any of the tasks that you use frequently by pressing the Start button on the scanner or by selecting the function from the smart touch function listing. Nine different functions can be assigned and performed.

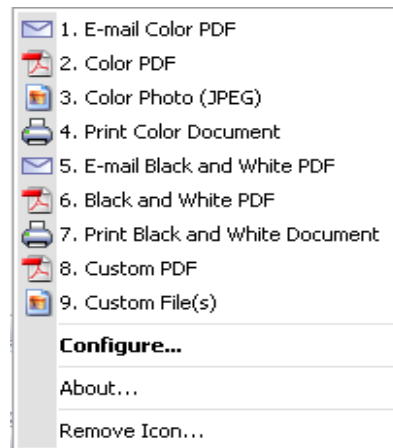
After the scanner, software drivers, and application software are properly installed and the PC has been restarted, a Scanner icon will be displayed on the system tray.



NOTE: If the Scanner icon indicates that the scanner is not ready, turn the scanner off, and then on again.



- Click on the Scanner icon on the system tray to display the smart touch function listing. This list displays the currently configured functions.

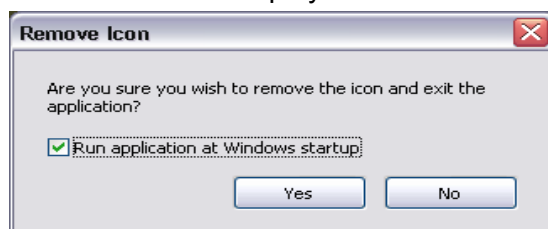


Function listing — click on one of the functions to run the assigned task.

Configure — select **Configure** to change the task assigned to a function.

About — displays the version number and information about smart touch.

Remove Icon — displays the Remove Icon dialog box.



When you click **Yes**, you will close smart touch and remove the smart touch icon from the system tray.

The software will restart automatically the next time Windows start ups or if you scan documents using the Start button on the scanner.

The software can be started manually by selecting **Start>Programs>Kodak>Document Imaging>i1310,i1320** (or i1210, i1220)>**Smart touch**.

Configuration dialog box

The Configuration dialog box allows you to change the tasks associated with each of the 9 function numbers.

When you select **Configure** from the function listing, the Configuration dialog box will be displayed.



Task shortcut — select the function (1 through 9) that you want to modify.

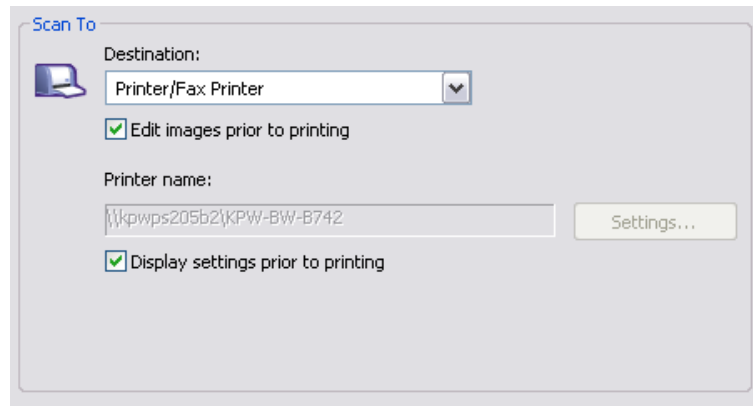
Rename — displays the Rename dialog box which allows you to enter a new name for the Task shortcut.

Scan To settings

Destination — allows you to select one of the following options:

- **File:** creates an electronic file from the scanned documents and saves it in the location specified in the Folder path.
- **Application:** creates an electronic file from the scanned documents and launches the application program for the saved file. For example, if your system is set up to use Adobe Reader to read PDF files, the saved file will be opened using Adobe Reader.
- **E-mail:** creates an electronic file from the scanned documents and launches your default E-mail program with the saved file included as an attachment.
- **Printer/Fax Printer:** sends the scanned documents to the printer or fax printer.

NOTE: If you select **Printer/Fax Printer**, the *Scan To* options change.



- **Display settings prior to printing:** if selected, the Print dialog box will be displayed after the document(s) are scanned, allowing you to select the printer and set the print options. The Print dialog box will be displayed each time the function is run.
- **Settings:** displays the Print dialog box allowing you to select a different printer or different set of print options for this function. These settings will be saved and used by default each time the function is run. This option is not available if **Display settings prior to printing** is checked.

Edit images prior to saving/emailing/printing: if selected, the scanned images will be displayed in an Edit window to allow for editing.

File Type — select one of these options based on how you want to save or send the scanned image(s). Available formats are:

- **PDF:** Adobe PDF files (Portable Document Files) look exactly like original documents and preserve the fonts, images, graphics and layout of the source files regardless of the application and platform used to create it.
- **PDF - Searchable:** same as a PDF file with the addition of full text search features for locating words.
- **RTF (Rich Text Format):** is a document file format developed by Microsoft to allow easy portability from one PC to another regardless of the operating system that is running on the PC.

- **JPEG/TIFF - Single page:** if you are scanning documents with multiple pages or sides, each page or side is saved as a separate JPEG or TIFF file.
- **TIFF - Multi-page:** combines all the scanned images into a single TIFF file.

Settings button — if you select **PDF - Searchable** or **RTF** as the File Type, the OCR Setup dialog box will be displayed.



- Select the language for the searchable PDF or RTF file and click **OK**.

Folder: enter the folder name where you want to save the scanned images or click **Browse** to locate the folder.

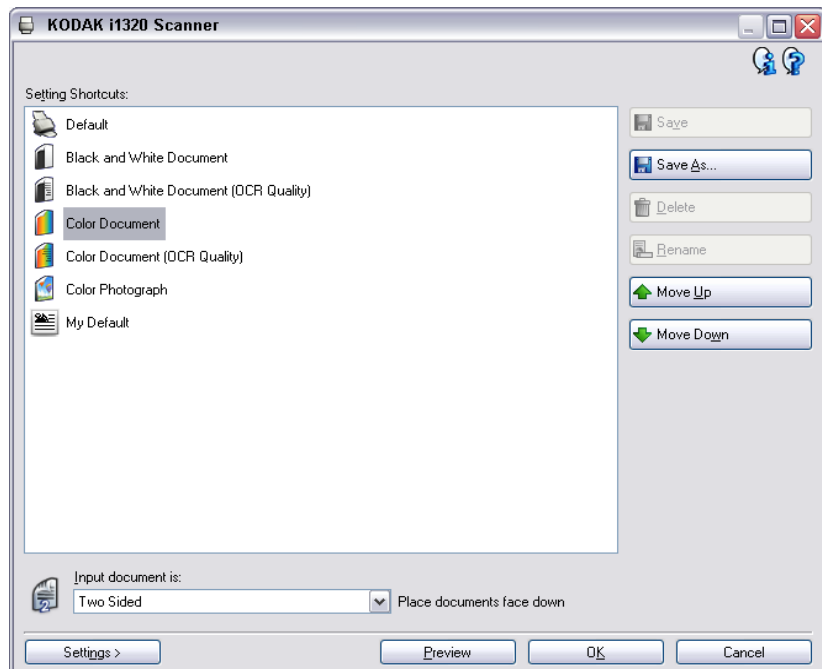
File Name Prefix: when images are scanned, they are automatically assigned a unique file name. For example, if you choose to scan your documents as PDF files, the software automatically assigns the date and sequence number for each image: 2006-04-27(1).pdf (for the first PDF file created), 2006-04-27(2) for the second PDF file created, etc. If you want to add a prefix to the file name, it will be attached to the beginning of each file name. For example, if you want the word *Invoice* before the file name, enter "**Invoice**" in the *File name prefix* field. The files will be named: **Invoice**2006-04-27(1); **Invoice**2006-04-27(20), etc.

Scan As settings

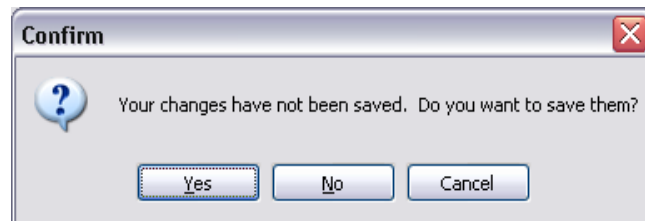
Settings Shortcut — displays the name of a group of scanner settings currently defined for use by the *Kodak* Scanner. This named group of scanner settings is called a *shortcut* and is described in more detail in Chapter 4.

Display settings prior to scanning: if selected, the Kodak Scanner window will be displayed before the document(s) are scanned, allowing you to select the scanner Settings Shortcut. The Kodak Scanner window will be displayed each time the function is run.

Settings: displays the Kodak Scanner window allowing you to select a different scanner Settings Shortcut for this function. The new Settings Shortcut will be saved and used by default each time the function is run. This option is not available if **Display settings prior to scanning** is checked.



OK — closes the Configuration dialog box. If you made changes in the Configuration dialog box and you did not save your changes, a message will be displayed.

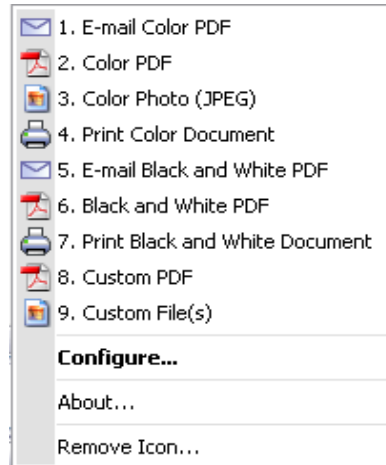


Cancel — closes the Configuration dialog box without saving any unapplied changes.

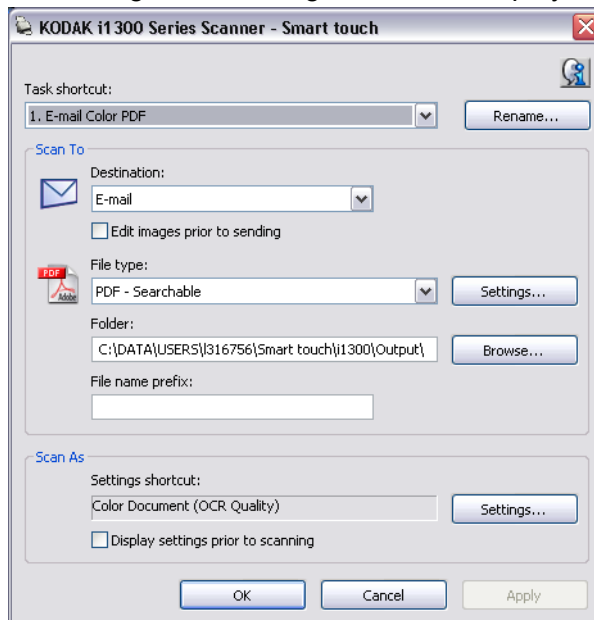
Apply — saves any changes made on the Configuration dialog box.

Configuring function numbers

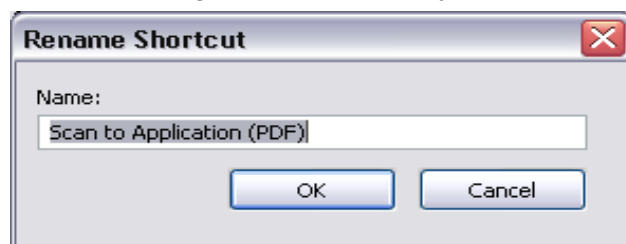
1. Click the smart touch icon on the system tray to display the smart touch function listing and select **Configure**.



The Configuration dialog box will be displayed.

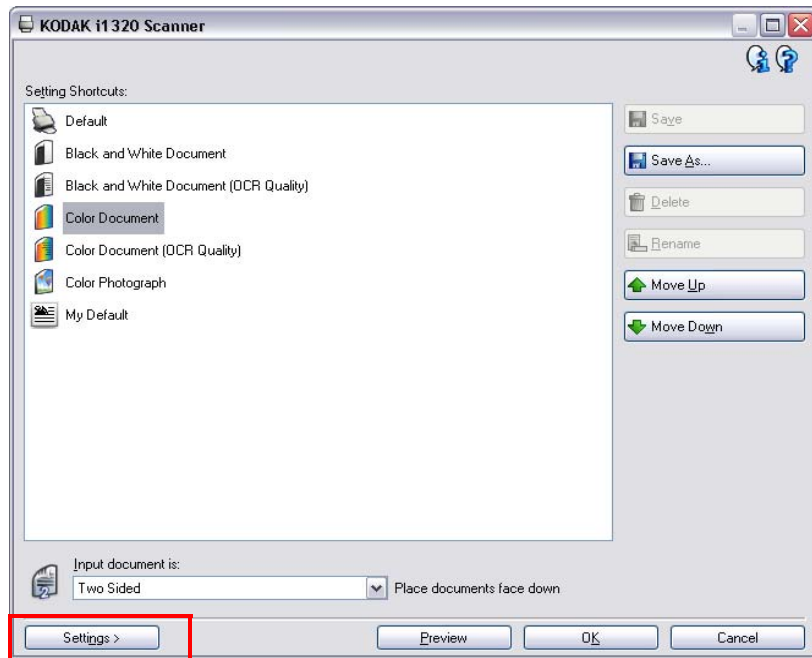


2. Select the Task shortcut you want to configure from the *Task Shortcut* drop-down list.
3. If you want to rename the Task Shortcut, click **Rename**. The Rename dialog box will be displayed.



- Enter the desired name and click **OK**.
4. Select the desired destination from the *Destination* drop-down list.
 5. Select the desired file type from the *File Type* drop-down list. This determines the file type of the electronic file to be created.

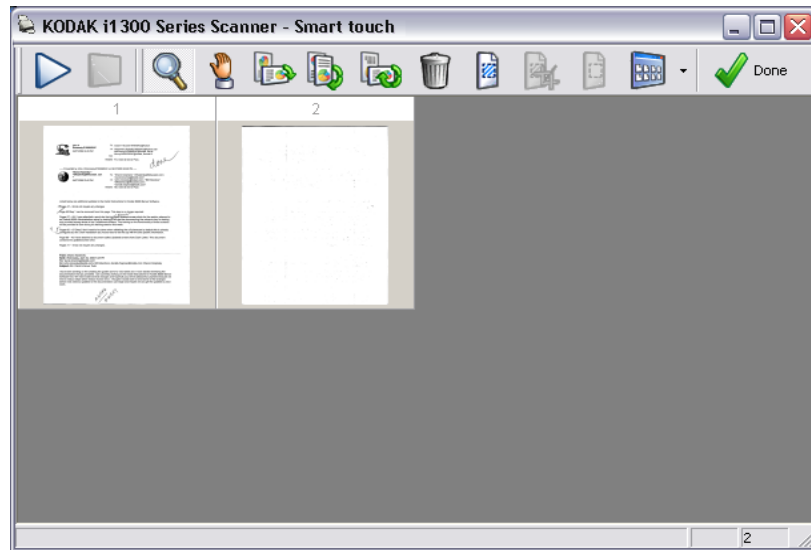
6. By default your documents will be stored within your “My Documents” folder. If you want to change it, enter the folder name or click **Browse** to select a different folder.
7. If desired, add a file name prefix by entering the text in the *File name prefix* field.
8. If desired, select a different scanner Settings Shortcut based on the type of document you are scanning by selecting the **Settings** button on the Kodak Scanner window.



9. If you want to change your scanner Settings Shortcut before scanning, check **Display settings prior to scanning** from the smart touch Configuration dialog box.
10. Click **Apply**.
11. Modify other function numbers by repeating Steps 2 and 10.
12. When finished, click **OK**.

Smart touch Edit window














The smart touch Edit window allows you to view the scanned images before sending them to the final destination. As documents are scanned, the images will be displayed in the Edit window.



From this window you can perform common editing tasks such as, rotating and deleting blank pages, etc. When finished, click **Done** to send the images to the final destination.

To enable this Edit window, select the **Edit images prior to sending** check box on the Configuration dialog box for the function you are configuring.

These icons are available on the Edit window. To use a tool, click on the icon and apply it to the desired image.

| | |
|---|--|
|  | Start — allows you to scan additional documents and append them to the current images. |
|  | Stop — cancels the scanning of documents. |
|  | Magnifier — magnifies a portion of the image. Press and hold the left mouse button inside an image to magnify it. Drag the tool across the image to magnify different areas of the image. |
|  | Pan — allows you to move the image freely around the window. Use this tool when the entire image is not visible in the display window, for example after zooming in. |
|  | Rotate 90 — rotates the image 90 degrees to the right. |
|  | Rotate 180 — rotates the image 180 degrees to the right. |
|  | Rotate 270 — rotates the image 270 degrees to the right. |
|  | Delete — deletes the selected image. A confirmation dialog box will be displayed before the image is deleted. |
|  | Select Region — allows a rectangular region to be drawn in each image. Use this tool with the Crop and Blank tools. Click on the icon in the lower left corner of an image to remove (deselect) the region. |
|  | Crop — crops the image, keeping only the portion of the image inside the region. A confirmation dialog box will be displayed before the image is cropped. |
|  | Blank — replaces the portion of the image inside the region with a white background. A confirmation dialog box will be displayed before the image is modified. |
|  | More Editing Tools — these are tools and shortcuts to get different views of the images, including tools to zoom in and zoom out. Normally the shortcuts (or hotkeys) would be used for these tools. |
|  | Done — click this icon when you have finished viewing or editing the images and you want to send them to the selected destination. |

Using function numbers

When you have assigned the function numbers, they can be easily launched by using the Start button on the scanner or from the smart touch function listing.

Launching from the scanner:

1. Use the arrow button to scroll through the function numbers and select the desired function.
2. Press the **Start** button. The task associated with the selected function number will be run.

Launching from the smart touch function listing:

1. Display the function listing from the smart touch icon on the system tray.
2. Select the function number you want to run.

Scanning your documents

Standard paper size documents should feed easily through the scanner.

- If you have a *Kodak* i1210 or i1310 Scanner or are scanning one-sided documents only, place the documents you want to scan into the input tray of the scanner. The documents should be placed with the side you want to scan facing the input tray.
- If you have a *Kodak* i1220 or i1320 Scanner or are scanning two-sided documents, place the documents in the input tray with the front side of the documents facing the input tray.



Automatic feeding

To scan a batch of documents, follow the guidelines for size, type, quantity, etc., in the “Document preparation” section.

IMPORTANT: *Staples and paper clips in documents may damage the scanner. Remove all staples and paper clips before scanning.*

1. Align the leading edges of the stacked documents.
2. Position the leading edge of the documents centered and facing the back of the scanner, as shown.



3. Adjust the input tray side guides.
4. Adjust the output tray position, if necessary.
5. Pull out the output tray extender, if necessary.
6. Start scanning.

Manual feeding

Follow the guidelines for document size, type, weight, quantity, etc. Position the leading edge of the document you want to scan in the input tray with the side you want to scan facing the input tray, then start scanning.

4 Image Processing

Overview

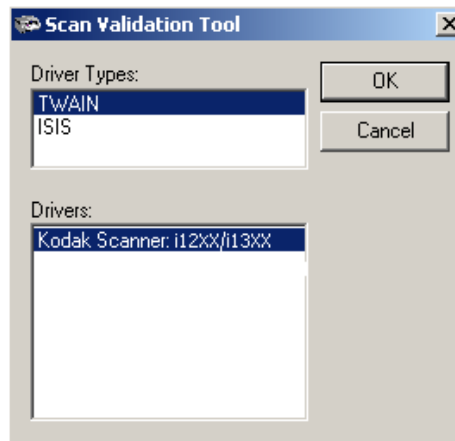
This chapter introduces concepts that may be new to many users. The *Kodak i1200/i1300 Series Scanners* provide the ability to process scanned images to improve their quality. Using these features the scanner can sometimes make the scanned image look better than the original document. Basic image processing concepts are reviewed in this chapter to help you take advantage of these powerful features.

Image processing refers to several separate features of the scanner that allow you to automatically adjust each image in a certain way that may improve the resulting images. Common examples of image processing features are correcting any skew in the fed document, cutting the edges of the image off to remove any unneeded border or cleaning up extraneous “noise” on the image. This can be done automatically so you can get better images with a minimum amount of rework.

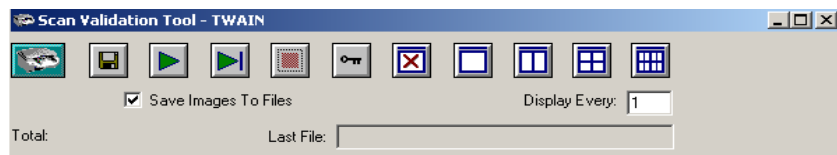
The information that follows describes the image processing features by walking you through the Scan Validation Tool. The same options should be available on the user interface of the software application you are using (i.e., *Kodak Capture Software*).

Starting the Scan Validation Tool

1. Select **Start>Programs>Kodak>Document Imaging>Scan Validation Tool**.

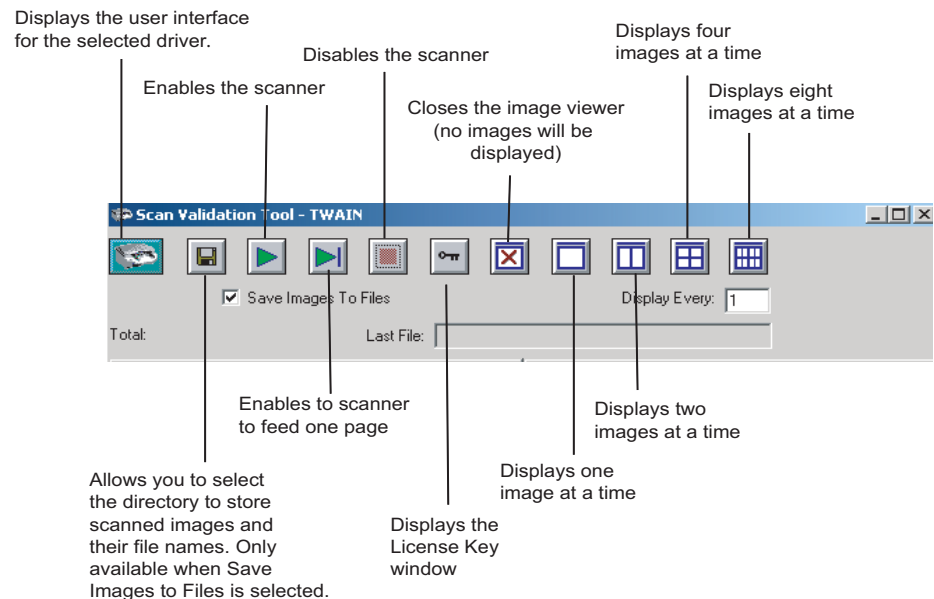


2. Select **TWAIN** (or **ISIS**) for the Driver Type and the **Kodak Scanner i1200/i1300 Scanner** as the Driver. The Scan Validation Tool dialog box will be displayed.



Scan Validation Tool dialog box

The Scan Validation Tool (SVT) is a diagnostic application that Kodak provides with most *Kodak* Scanners. The SVT user interface allows access to all the features of the scanner and is a good way to verify that the scanner is working properly. The Scan Validation Tool allows you to verify scanner functionality using both the TWAIN datasource and the ISIS driver.



Display Every — enter the sampling rate of the images you want to display while scanning. For example, to see every image, enter a value of 1. To see every 10th image, enter a value of 10.

Last File — displays the full path and file name for the last stored image.

Total — displays the total number of images scanned during the current Scan Validation Tool session.

- To access the TWAIN datasource (or ISIS driver), double-click the Scanner icon on the Scan Validation Tool dialog box to access the Kodak Scanner window.

Using the TWAIN datasource

The TWAIN datasource is software that communicates with your scanner. It is provided by Kodak with the i1200/i1300 Scanners. Many scanning applications support the TWAIN standard and this datasource can be used to interface with these applications.

This section provides descriptions of the scanner features using options on the TWAIN datasource tabs. If you are using the TWAIN datasource, follow the procedures in this section to set up your scanner. If you are using the ISIS driver, see the section entitled, “Using the ISIS driver” later in this chapter.

For the purpose of this manual, all displayed dialog boxes assume the features available on the *Kodak* i1220 or i1320 Scanner (duplex scanner). If you have a *Kodak* i1210 or i1310 Scanner (simplex scanner) all options are limited to one-sided scanning only.

Terminology and features

Throughout this manual the terms “dual stream” and “automatic color detection” are used. On the new TWAIN datasource interface *dual stream* refers to **Multiple**; and *automatic color detection* refers to **One-based on document content**. Both of these options can be configured on the Advanced and Content Settings tabs.

If you have used previous scanners from Kodak, you may be familiar with many of the image processing features already. With the new graphical user interface in the TWAIN datasource, some of the names of those features have changed. Refer to *Appendix B, Feature Map* for a cross reference of old feature names with new feature names.

How do I begin?

First you need to select a Settings Shortcut you want to use from the main Kodak Scanner window. Each Settings Shortcut is separately named and contains the scanner settings needed to do a certain scanning job. For additional flexibility, Settings Shortcuts also include device settings, like Energy Star and transport time-outs. By default, the i1200 and i1300 Series Scanners come with predefined Settings Shortcuts for the most common scanner tasks. Using these Settings Shortcuts can save you time and makes it easy to be productive. For example, if you want to scan color business documents and convert them to a JPEG file, all you need to do is choose the Settings Shortcut that is configured with the settings that best meet your scanning needs.

You can alter and create Settings Shortcuts for your specific scanning needs. In order to create your own custom Settings Shortcut, select one of the default Settings Shortcuts to use as a template, make your desired changes to the settings and then save the Settings Shortcut with a name that is meaningful to you. You cannot modify the default Setting Shortcuts.

Most of the options you'll want to set are available on these two windows:

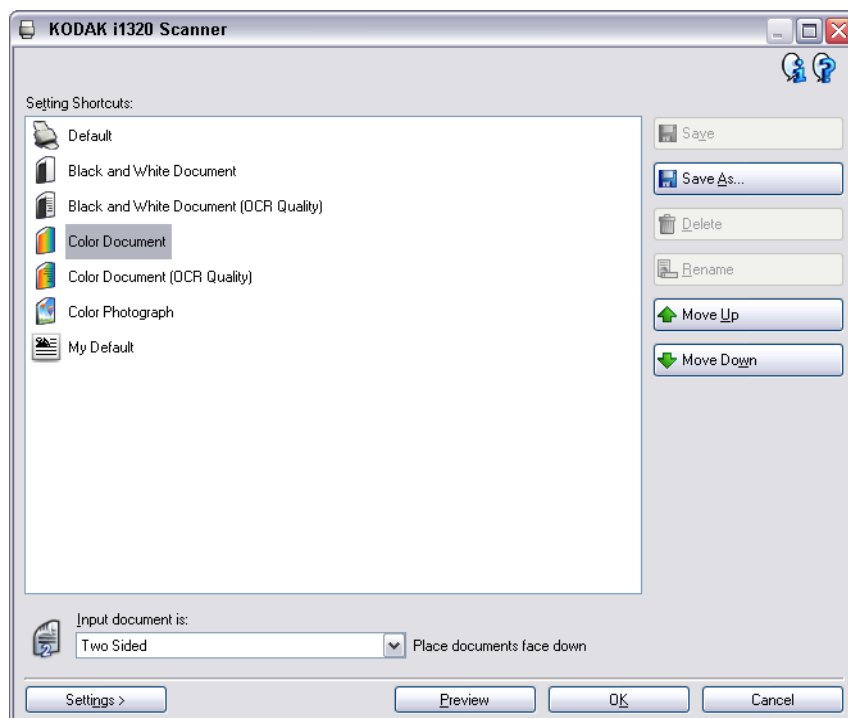
- **Image Settings:** clicking the Settings button on the main Kodak Scanner window, displays the Image Settings window. From this window you can set your image processing parameters by using the General, Size, Adjustments and Enhancements tab. You can also access the Device settings, by clicking the **Device** button or the Advanced settings by clicking the **Advanced** button.
- **Device Settings:** the Device button is located on the Image Settings window. When you select **Device**, you will have access to the General and Multifeed tabs. From the Device Settings window, you can also access Diagnostics.

The procedures that follow describe how to configure a customized Setting Shortcut. Complete descriptions of the features and options on the Kodak Scanner window and tabs are found in the section entitled, "The main Kodak Scanner window".

NOTE: Settings Shortcuts can sometimes be overridden by your scanning application. If this happens, the Shortcut you call will appear in the main Kodak Scanner window in italics with the word *<Changed>* next to it. This is normal behavior for an application that does not use Settings Shortcuts and downloads its preferred individual settings to the scanner first and then provides access to the TWAIN datasource.

Selecting Image settings

From the main Kodak Scanner window:



1. Select a predefined Setting Shortcut from the Settings Shortcuts list box. Choose a Setting Shortcut that describes as closely as possible the image output you desire.
2. Determine if you want to capture an electronic image of the front of

2. Determine if you want to capture an electronic image of the front of your document, back of your document or both sides of your document and make the selection from the *Input Document* is drop-down list. Options are:

- **Two Sided** — captures both sides of the document
- **One Sided-Front** — captures the front side only
- **One Sided-Back** — captures the back side only

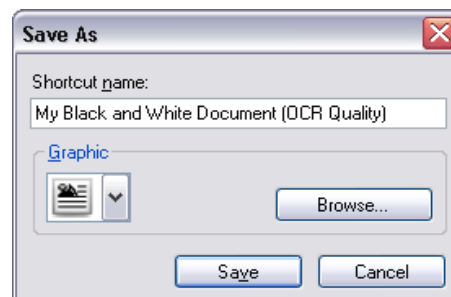
3. Place one or two representative documents in the input tray of the scanner.

NOTE: When scanning one side of a document or if you are using an i1210 or i1310 Scanner, be sure to place the side of the document to be scanned facing the input tray.

4. If you want to see what your selected image processing options will look like and make on-screen changes, click **Preview** to review and adjust the image.

This only needs to be done if you want to make interactive adjustments to your selected image processing options.

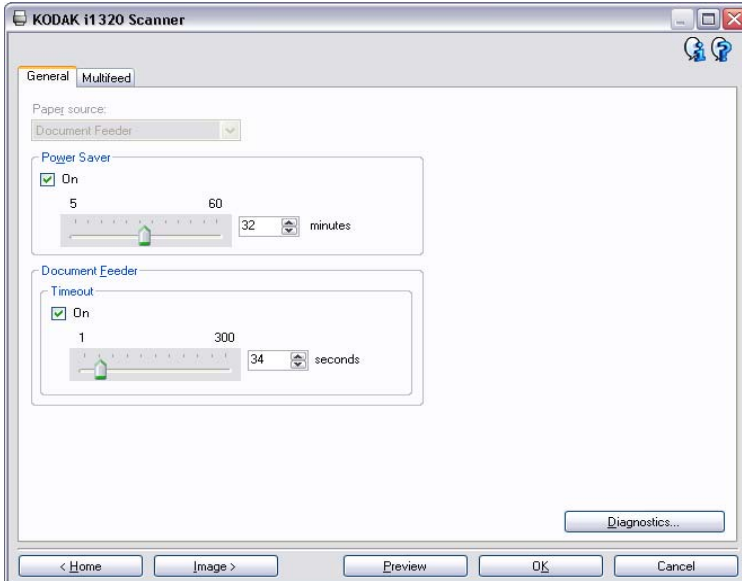
5. If you are satisfied with your selected image processing options, reload your document if necessary and click **Scan**.
 - If the images are acceptable, the image processing settings are fine and you do not need to click the Settings button to alter any values in the General, Size, Adjustments or Enhancements tabs.
 - If the images are not acceptable, you can either select a different predefined Setting Shortcut that more closely describes your desired output or you can continue to work with the Setting Shortcut you have selected by reviewing each setting on the General, Size, Adjustments and Enhancements tabs and make the appropriate changes. When you make any changes, repeat Steps 3 - 5 to until you get the desired results.
6. If you made any changes to a predefined Setting Shortcut, click **Save As** on the main Kodak Scanner window. The Save As dialog box will be displayed.



7. Enter a new Setting Shortcut name that is meaningful to you and click **Save**. You have now created and saved a custom Setting Shortcut which can be used for your scanning operations.

Selecting Device settings

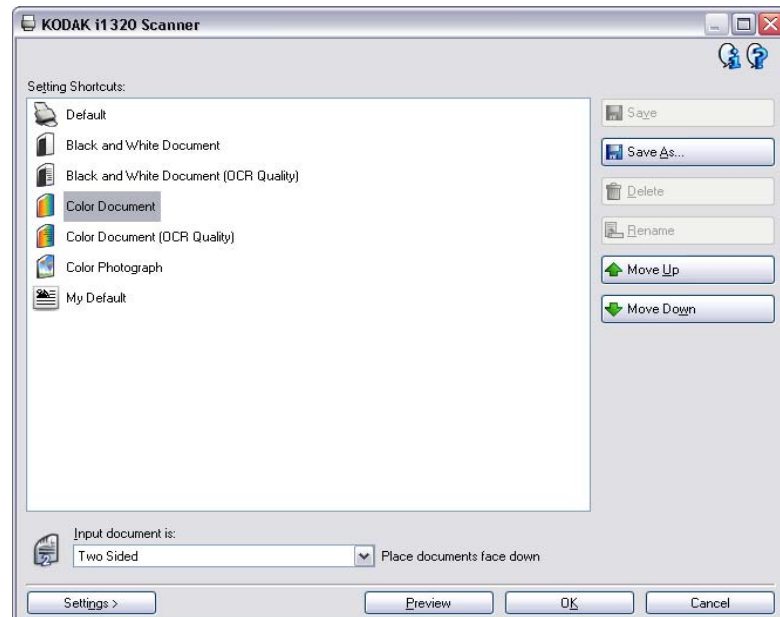
1. Select the Setting Shortcut that you just created.
2. Select **Settings** to access the Image Settings window.
3. Select **Device**. The Device Settings window will be displayed.



4. Before making any adjustments, click through the tabs on the Device Settings window to get familiar with features that are available. See the section entitled “The Device Settings window” for information about these features.
5. Determine which features you want to use when scanning and select the appropriate tab.
6. On each tab, select the appropriate options or action you want the scanner to perform.
7. When finished:
 - Click **Home** to return to the main *Kodak* Scanner window and click **Save** to save your selections to your custom Setting Shortcut, or
 - Click **Image** to return to the Image Settings window if you need to make additional changes.

The main *Kodak* Scanner window

The main Kodak Scanner window displays the image processing Setting Shortcuts for your scanner. You can use the predefined Setting Shortcuts or set up a custom Setting Shortcut for your scanning needs.



Setting Shortcuts — provides a listing of the Setting Shortcuts currently set up.

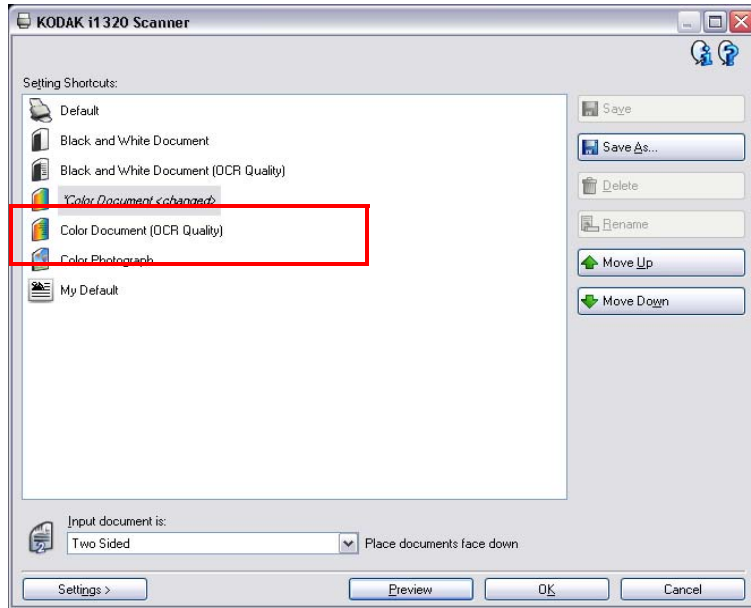
- **Default** — this Setting Shortcut contains the system default settings. Use the default Setting Shortcut as a starting point for a customized Setting Shortcut.

Input document is — provides a listing of the types of documents you are scanning.

- **One Sided - Front:** select when scanning one-sided documents that are placed in the input tray face down.
- **One Sided - Back:** select when scanning one-sided documents that are placed in the input tray face up.
- **Two Sided:** select when scanning two-sided documents, documents can be placed in the input tray facing you or the input tray.

Save — saves any changes made on the current Setting Shortcut.

NOTE: If you have made changes to an existing Setting Shortcut and have not saved your changes, it will be displayed in italics on the main window.



Save As — displays the Save As dialog box allowing you to save your current settings with a Setting Shortcut name that is meaningful to you.

Delete — deletes the selected Setting Shortcut.

Rename — allows you to rename the selected Setting Shortcut.

NOTE: When a factory-set Setting Shortcut is selected (i.e., *Defaults*), **Delete** and **Rename** are not available.

Move Up — moves the selected Setting Shortcut up one position in the Settings Shortcut list. When you move a Setting Shortcut, it will stay in that position until you move it again.

Move Down — moves the selected Setting Shortcut down one position in the Settings Shortcut list. When you move a Setting Shortcut, it will stay in that position until you move it again.

Settings — displays the Image Settings window. From this window you can set your image processing parameters by using the General, Size, Adjustments and Enhancements tabs. You can also access the Device settings by clicking the Device button.

Preview — when you are creating a Setting Shortcut, the Preview window displays the scanned image and shows any adjustments you make to the settings.

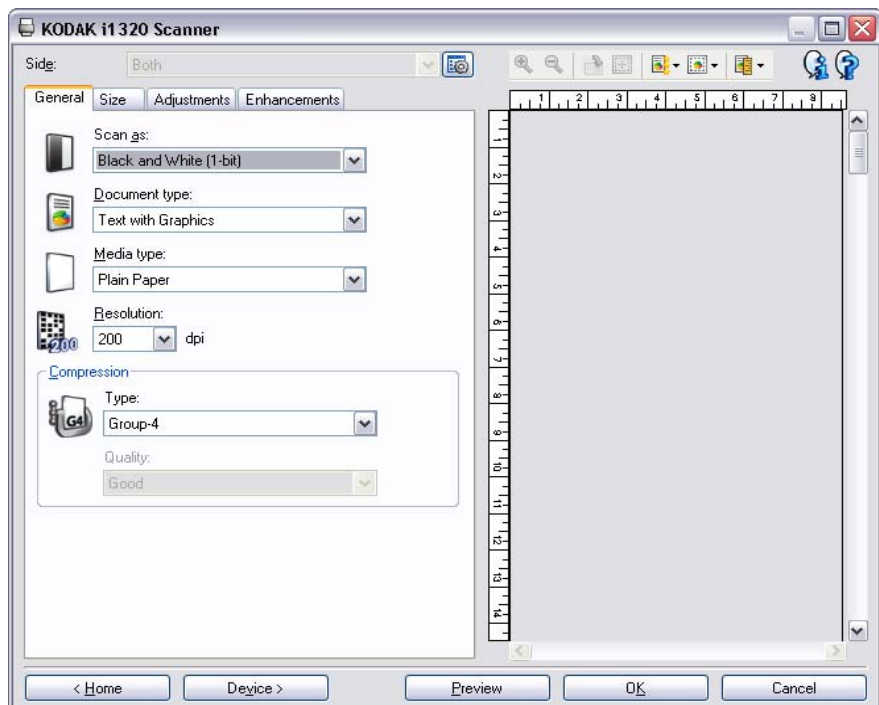
OK — saves your changes.

Cancel — closes the main *Kodak* Scanner window without saving any changes. If you have made changes to a Setting Shortcut and have not saved the changes, a message will be displayed notifying you that there are unsaved changes.

The Image Settings window

The Image Settings window allows you to define image processing values that can be applied to your scanner. The Image Settings window includes four tabs: General, Size, Adjustments, and Enhancements. The options available on each tab are dependent upon the selection you make from the *Scan As* drop-down list on the General tab.

Side — the Side drop-down box is located above each of the main tabs on the main Kodak Scanner window. This drop-down box shows you which side of the document the scanner settings will be applied to. For i1220 and i1320 Scanners the Side drop-down box is grayed out and the image settings will be applied to both sides. If you want different settings for each side of your document, select the **Different Settings per side** checkbox on the Advanced tab. Selecting that checkbox will enable the Side drop-down box. For more information see the section entitled, “Advanced options” later in the chapter.









Preview window

The Preview window is a powerful tool used when creating a Setting Shortcut that, in most cases, allows you to see and interactively change the results your image processing choices have on a sample document. You can do this without rescanning the document, making the adjustment process quick and easy. Once you have adjusted your Setting Shortcut to display your scanned document the way you want it, you can save the Setting Shortcut and access those same image and devices settings for any scanning job you need. Use the Preview window with your difficult documents to quickly and easily find the optimal group of settings needed to create the best images. The Preview window is displayed as part of the Image Settings window for each of its tabs (General, Size, Adjustments, Enhancements).

NOTE: If you choose **Document: Manually Select** on the Size tab, the Preview window can also be used to draw cropping frames.

Toolbar icons

Following is a description of the toolbar icons.

| | |
|---|--|
|  | Zooms in on a portion of the image. Press and hold the left mouse button inside an image to magnify it. Drag the tool across the image to magnify different areas of the image. |
|  | Zooms out on a portion of the image. Press and hold the left mouse button inside an image to reduce it. |
|  | Rotate outline — rotates the outline 90 degrees if the rotated outline fits in the scanner's maximum width. |
|  | Center outline — adjusts the X origin of the outline such that the outline is centered within the scanner's maximum width. |
|  | Select the Preview image quality you want displayed. Normal : displays acceptable image quality at a lower resolution. High : displays the most accurate representation of the actual image. That image that is displayed in the Preview window is a good representation of what the final image will look like. |
|  | Select the unit of measurement for the Preview grid. Options are: Inches , Centimeters and Pixels . |

General tab

The General tab allows you to define several image processing values that can be applied to your scanner.

Scan as — select one of the following options:

- **Color (24-bit)**: if you want your electronic image to be in color.
- **Grayscale (8-bit)**: if you want your electronic image to have a range of varying shades of gray from black to white.
- **Black and white (1-bit)**: if you want your electronic image to represent all elements of your document in black and white.

NOTE: The *Scan As* option is not available when **Multiple Images per Side** or **One based on document content** is being used. These options already imply a combination of two of the *Scan As* options.

Document type — select one of the following based on the documents you are scanning:

- **Text with Graphics**: the documents contain a mix of text, business graphics (bar graphs, pie charts, etc.) and line art.
- **Text**: the documents contain mostly text.
- **Photographs**: the documents contain mostly photos.

Media type — select one of the following options based on the texture/weight of the paper you are scanning. Available options are: Plain Paper, Thin Paper, Glossy Paper, Card Stock, Magazine.

Resolution or dots per inch (dpi) — indicates the scanning resolution, which largely determines the quality of the scanned image. The greater the resolution, the better the reproduction. However, scanning at a higher resolution also increases scanning time and file size. The industry standard is 200 dpi (about 8 pixels/mm). Available resolutions are: 75, 100, 150, 200, 240, 300, 400, 600 and 1200 dpi.

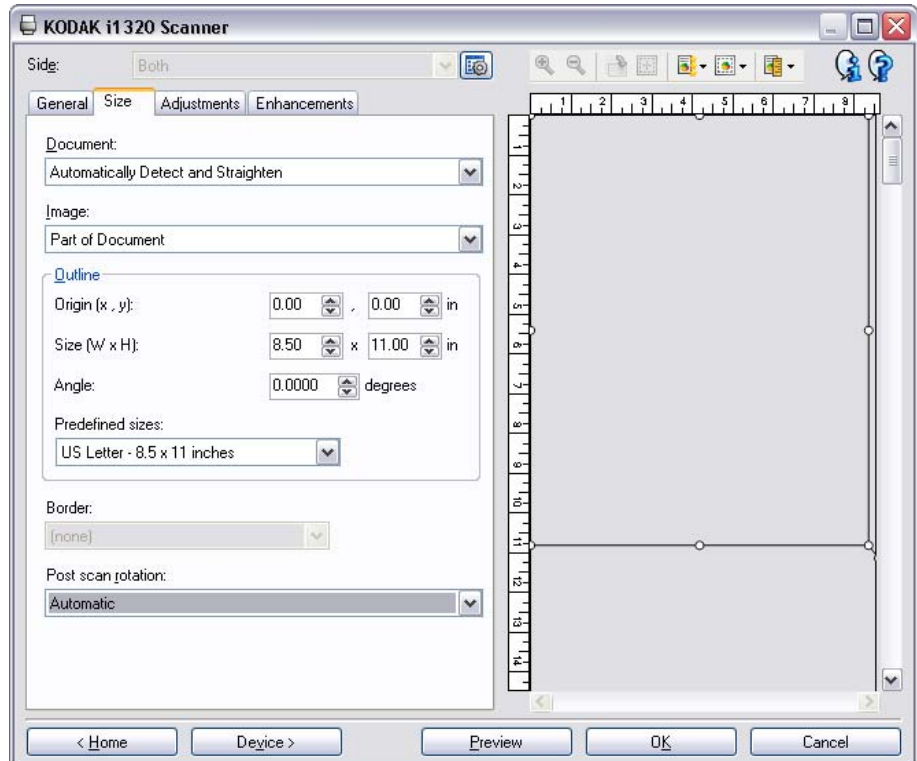
Compression — squeezes the file to decrease the total size. Black and white images are normally compressed using a CCITT standard called Group IV, often used in conjunction with TIFF files. Color and grayscale images are often compressed using JPEG techniques.

Quality — if you choose JPEG compression, select one of the quality options:

- Draft: smallest file size with draft image quality
- Good: larger file size with good image quality
- Better: larger file size with better image quality
- Best: larger file size with the best image quality
- Superior: largest file size with superior image quality

Size tab

The Size tab allows you to define values relating to the image output (i.e., cropping values, paper size, etc.).



Document

- **Automatically Detect and Straighten:** when a document(s) is fed into the transport, this option will automatically straighten and crop the image to the edge of the document. (This option is referred to as *automatic cropping and deskew* on previous Kodak Scanners. For a complete list on how our older products map to new features and names for our new products, see the Feature Map in Appendix B.)
- **Automatically Detect:** when a document(s) is fed into the transport, this option will automatically crop the image to the edge of the document but does not straighten the image. (This option is sometimes referred to as *automatic cropping*.)
- **Manually Detect:** allows you to define the area to be imaged. Use this option for batches of same-sized documents. (This option is sometimes referred to as *fixed cropping*.)

Image

- **Entire document:** returns the entire document as the image.
- **Part of the document:** allows you to select a portion of the scanned document to return as the image.

Outline — enter the Origin and Size values. You can enter the desired values in the fields or use the arrow keys to define the desired area. The Preview window will show image dimensions and placement as you change the values. This option is only available when you select a *Document* option which allows an *Image* selection of **Part of Document**.

- **Origin (x, y):** the distance from the left end of the scanner to the left edge of the scanning area (x) and the distance from the top of the Detect and Straightened document to the top of the image (y).
- **Size (w, h):** the width and height of the scanning area.
- **Angle:** automatically calculates the Origin values based on the document size selected. This is the angle of the outline.
- **Predefined sizes:** select a different paper size by using the drop-down list.

Use the bounding box on the Preview window to adjust or move the image dimensions and placement.

Border

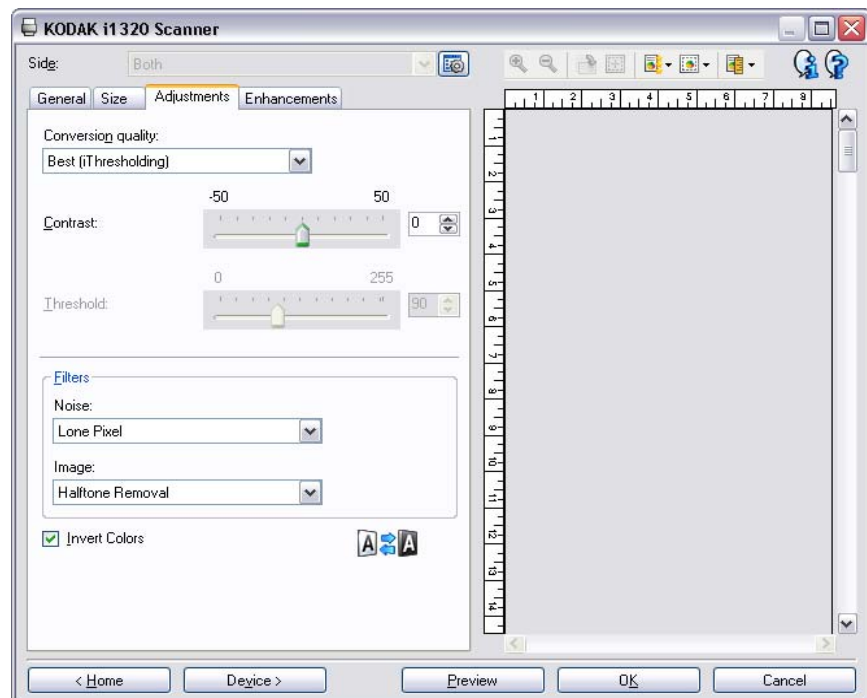
- **Remove:** eliminates any residual black border on the image edges. In order to achieve this, there is a possibility that a small amount of image data may be lost.
- **Add:** allows you to add a fixed amount of border to the left, right, top and bottom edge of the image.

Post-scan rotation options:

- **90, 180, 270 degrees** — sometimes “portrait” documents are fed into the scanner in “landscape” orientation. When this happens, the image must be rotated to view the original portrait orientation. This may be accomplished in the scanner by selecting **90°**, **180°** or **270°**.
- **Automatic based on content** — when selected, images will be rotated to their proper orientation, if needed.
- **None** — no rotation will be done.

Adjustments tab: black and white

The options available depend on the **Scan As** selection you made on the General tab. The following options are based on a Scan As selection of **Black and White**.

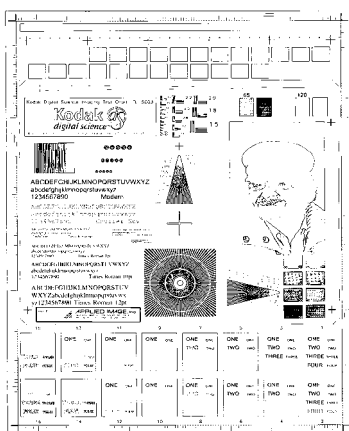


Conversion quality — these settings effect the black and white image. Available options are **Best**, **Normal** and **Draft**. These options are applied to grayscale scanned images and outputs a black and white electronic image. The strength of the Best and Normal options lie in the ability to separate the foreground information from the background information even when the background color or shading varies, and the foreground information varies in color quality and darkness. Different types of documents may be scanned using the same image processing parameters and results in excellent scanned images. For scanning jobs where it is still needed, **Draft** is still available.

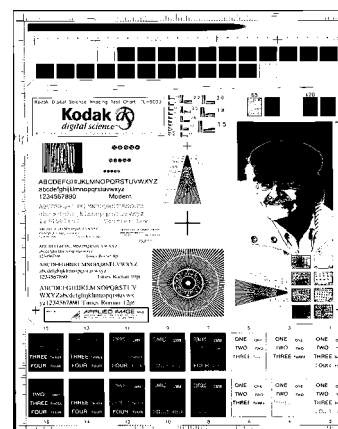
- **Best (iThresholding)**: the scanner dynamically evaluates each document to determine the optimal threshold value to produce the highest quality image. This allows scanning of mixed document sets with varying quality (i.e., faint text, shaded backgrounds, color backgrounds) to be scanned using a single setting thus reducing the need for document sorting. When using **Best**, only Contrast can be adjusted.
- **Normal (ATP)**: separates the foreground information in an image (i.e., text, graphics, lines, etc.) from the background information (i.e., white or non-white paper background). When using **Normal**, Threshold and Contrast can be adjusted.
- **Draft (Fixed)**: used for black and white and other high contrast documents. If **Draft** is selected, only Threshold can be adjusted.

Contrast — adjusts the difference between black and white, thereby making an image sharper or softer. The difference between black and white is small with a low contrast setting so the image is softer. With a high-contrast setting, the difference between black and white is large, so the image is clearer. Contrast values range from -50 to 50. The default is 0.

Threshold — controls the level at which a pixel is considered black or white (1 bit/pixel). A low threshold value produces a lighter image, and can be used to subdue backgrounds and subtle, unneeded information. A high threshold value produces a darker image, and can be used to help pick up light information. Threshold values range from 0 to 255. The default is 90.



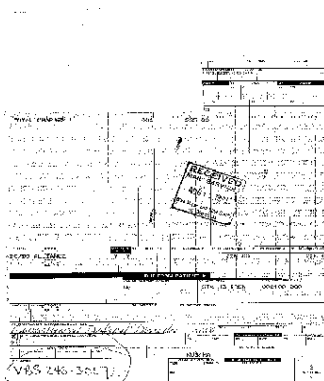
Threshold: 50



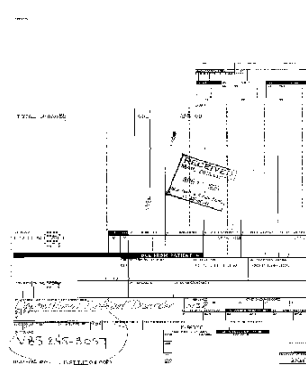
Threshold: 127

Filters - Noise

- **Lone Pixel:** reduces random noise on black and white images by converting a single black pixel surrounded by white to white or by converting a single white pixel surrounded by black to black.
- **Majority Rule:** sets the central pixel value in a matrix according to the majority of white or black pixels in a matrix.



No Noise Filter Used



Lone Pixel

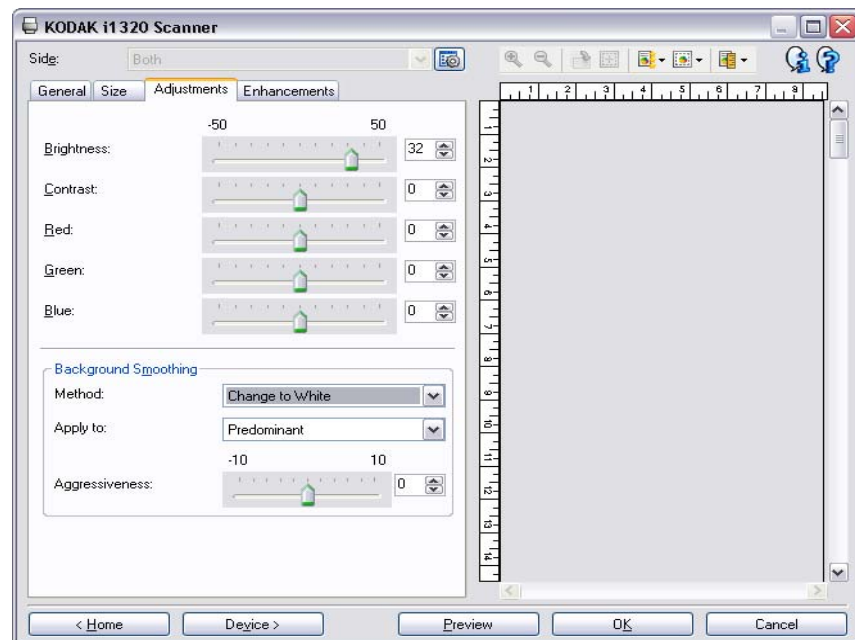
Filters - Image

- **Halftone Removal:** enhances images containing dot matrix text and/or images with shaded or colored backgrounds using halftone screens, and effectively eliminates noise caused by the halftone screen.

Invert Colors — defines whether the image should be stored in black on a white background or white on a black background. The default is **black on a white background**. If you want the image to be stored as **white on black background**, check this option.

Adjustments tab: color or grayscale

The options available depend on the **Scan As** selection you made on the General tab. The following options are based on a Scan As selection of **Color** or **Grayscale**.



Brightness — changes the amount of white in the color or grayscale image.

Contrast — makes the image sharper or softer.

Red — changes the amount of red in the color image. *Does not apply to grayscale images.*

Green — changes the amount of green in the color image. *Does not apply to grayscale images.*

Blue — changes the amount of blue in the color image. *Does not apply to grayscale images.*

- Adjust these settings by dragging the slider bar to the left or right, entering a value in the text box or using the up/down arrows. While each setting may effect the underlying gamma table, Brightness and Contrast are the options that provide the widest range of changes.

Background Smoothing — use this option when you are scanning documents or forms with a background color(s). Background Smoothing produces images with a more uniform color. This option improves image quality and reduces file size.

- **Method:** select one of the following:
 - **None** - no background smoothing will be done.
 - **Automatic** - background smoothing is applied to the actual color.
 - **Change to White** - identifies the background color and substitutes that color with white.

- **Apply to:** available if you select the **Change to White** option.
 - **Predominant** - smooths the predominant background color to white.
 - **Neutral** - smooths just the neutral color to white; will also smooth two additional background colors to a uniform color.
 - **All** - smooths up to three background colors to white.
- **Aggressiveness:** select a value to increase or decrease the effect.

Preview button — displays the scanned image in the Preview window so you can see the effect of the changes you are making on the Adjustments tab.

Enhancements tab

The options on the Enhancements tab are available based upon your **Scan As** selection on the General tab.

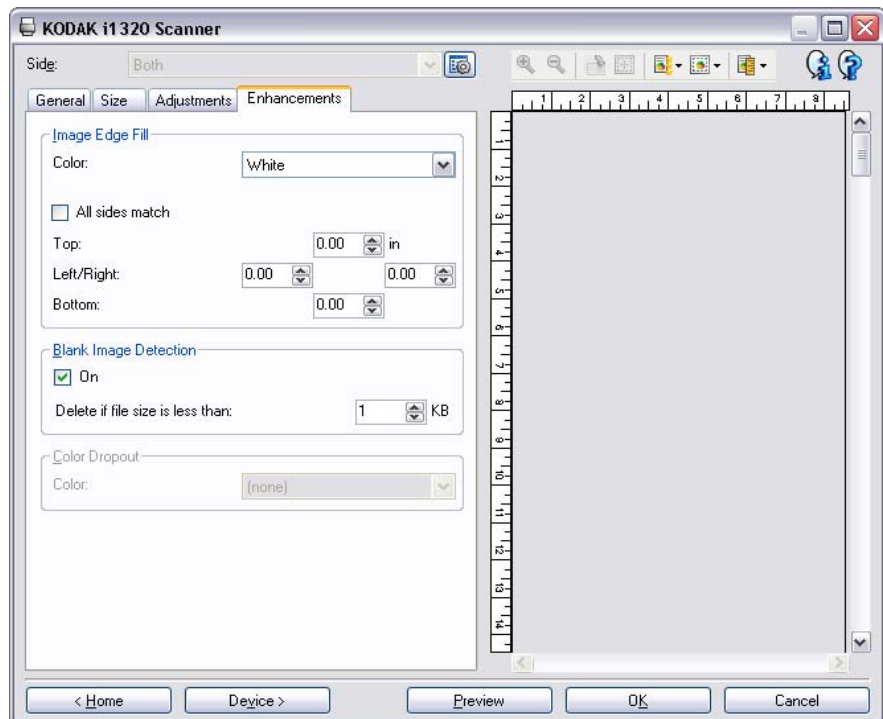


Image Edge Fill — fills the edges of a scanned image by covering the area in Black or White, as selected from the *Color* drop-down list. Image Edge Fill is performed after all other image processing options have been applied.

Select **All sides match** to fill in an equal amount on all sides, or select a value in the **Top**, **Left**, **Right** and/or **Bottom** area(s) from each side of the scanned image to be filled.

When using this option, be careful not to enter a value too large as it could fill in image data that you want to keep.

Blank Image Detection — use the arrows to select the image size before which an image is determined to be blank. Images with sizes less than the size number you select (ranges from 1 to 1000 KB) will not be created. If you use this option, you must specify a blank image size for each image type (black and white, grayscale and color) you want to delete. The default is **none**, which means you keep all images.

Color Dropout — used to eliminate a form's background so that a document management system may automatically - through OCR (Optical Character Recognition) and ICR (Intelligent Character Recognition) technology - read pertinent data without interference from the lines and boxes of the form. *Kodak* Scanners can drop out either red, green or blue. Color Dropout options are only available when **Black and White** or **Grayscale** is selected from the *Scan As* drop-down list on the General tab.

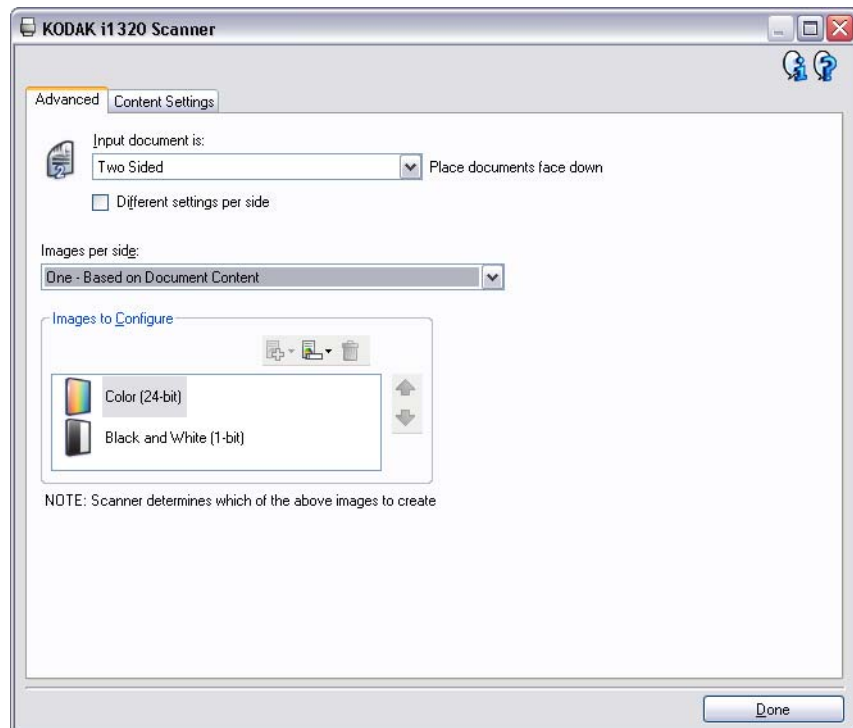
- **Color:** select the desired dropout color.

Advanced options

The Advanced button is located at the top of the Image Settings window next to the **Side** drop-down box.

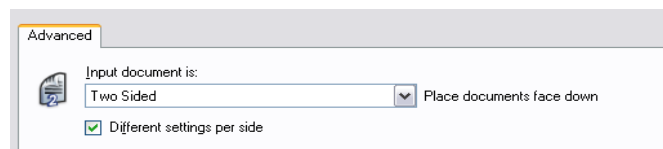


When you select the three dots (...) button, the Advanced tab will be displayed. **Multiple, One - based on document content, and configuring different settings** for each side can all be set up using the Advanced tab.



Input document is — select **Two Sided**, **One sided - Front**, or **One sided - Back** depending on what side(s) you want to configure.

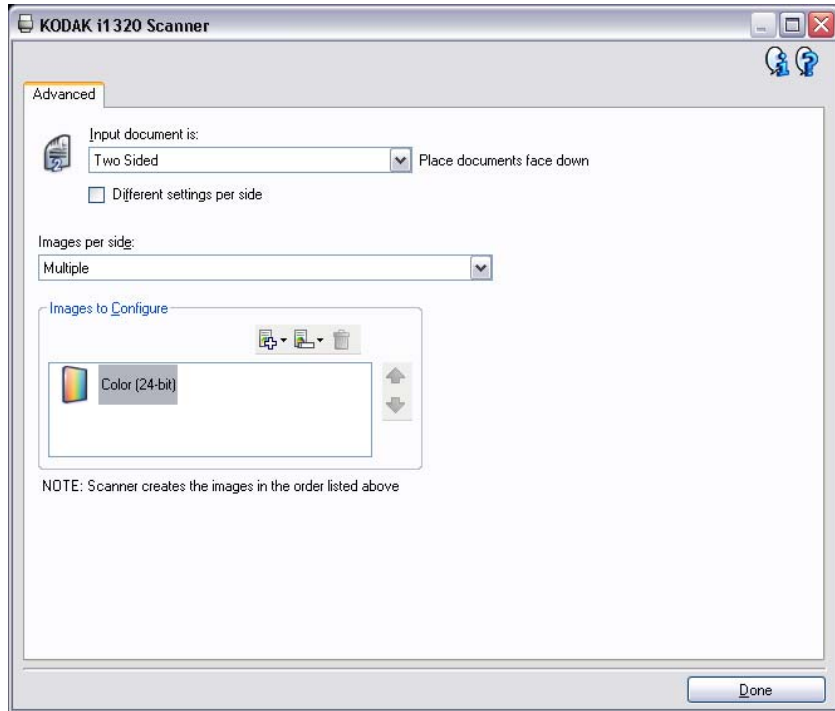
Different settings per side — by default, the settings you select in the TWAIN datasource apply to both sides of the image. Check this option if you want you to select different image processing settings for each side of the document you are scanning. For example, if you want the front side to be color and the rear side to be black and white, first make sure that you have selected the **Two Sided** option from the *Input Document is* drop-down list, then select the *Different Settings per side* checkbox.



Once you have done this, the *Side* drop-down list on the Image Settings window will no longer be grayed out and you can select different settings for each side. Now that you have enabled **Different settings per side**, your initial selections will apply only to the front side of the document you are scanning. After you have made your selections for the front side, use the *Side* drop-down list to select the back side and then make the settings you want to apply to the back.

NOTE: The **Different settings per side** option is only available for Kodak i1220 and i1320 Scanners.




Images per side — indicates how many images the scanner will create for a side.



Images to Configure — by selecting **One - based on document content** as the value in the *Images per side* drop-down box, you are indicating that you want the scanner to automatically detect if the document is color or black and white, and generate the image that matches your selections. Refer to the examples later in this section to see how to configure this.

Use the up and down arrows to select the order the images will be delivered by the scanner to the scanning application.

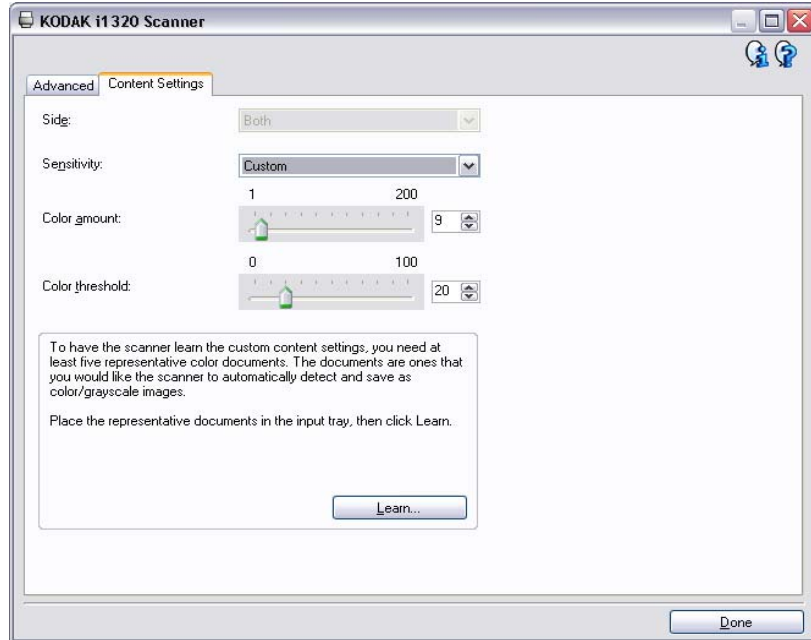
Icons:

| | |
|---|--------------------------------------|
|  | Adds an image type. |
|  | Allows you to change the image type. |
|  | Deletes the selected image type. |

Done— returns you to the main Kodak Scanners window.

Content Settings tab

The options on the Content Settings tab can be used for either single stream or dual stream jobs.



Side — determines which side the Sensitivity settings are applied to. This option is only available if **Different settings per side** is checked on the Advanced tab.

Sensitivity — options are: Low, Medium, High, and Custom.

- **Low:** documents requiring only a small amount of color to be saved as color or grayscale images. Used for capturing documents that are primarily black text with small logos, or contain small amounts of highlighted text or small colorful photos.
- **Medium:** documents requiring more color, as compared with the Low option, before they are saved as color or grayscale images.
- **High:** documents requiring more color, as compared with the Medium option, before they will be saved as color or grayscale images. Used for distinguishing documents containing medium- to large-size colorful photos from plain black text. Photos with neutral colors may require adjustments to the Color Threshold or Color Amount values in order to be captured correctly.

- **Custom:** allows you to manually adjust the **Color amount** and/or **Color threshold**.

NOTE: When setting Sensitivity values, it is suggested that you start with the **Medium** option and scan a typical job set. If too many documents were returned as color/grayscale vs. black and white, then change to the **High** option and re-run the job. If too few documents were returned as color/grayscale vs. black and white, then change to the **Low** option and re-run the job. If none of these options provide the desired result, select **Custom** to manually adjust Color Amount and/or Color Threshold. **Custom** also allows access to the **Learn** mode which provides a method for the scanner to analyze documents and recommend settings.

Color amount — the amount of color that needs to be present in a document before it will be saved as either color or grayscale. As the value of Color Amount increases, more color pixels are required. Valid values are 1 to 200.

Color threshold — the color threshold or saturation (i.e., pale blue vs. dark blue) at which a given color will be included in the color amount calculation. A higher value indicates that a more intense color is required. Valid values are 0 to 100.

Learn — if you select **Custom**, the **Learn** option is available.

1. Click **Learn**.
2. Place at least 5 representative color documents in the input tray and click **OK**. These documents will be scanned and analyzed and the recommended color amount will be calculated for you.

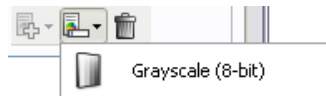
The Color Amount and Color Threshold sliders will be updated automatically.

NOTE: These settings were calculated based on the representative color documents scanned. If these values do not provide the desired results with your job set, you may need to manually adjust the **Color Threshold**.

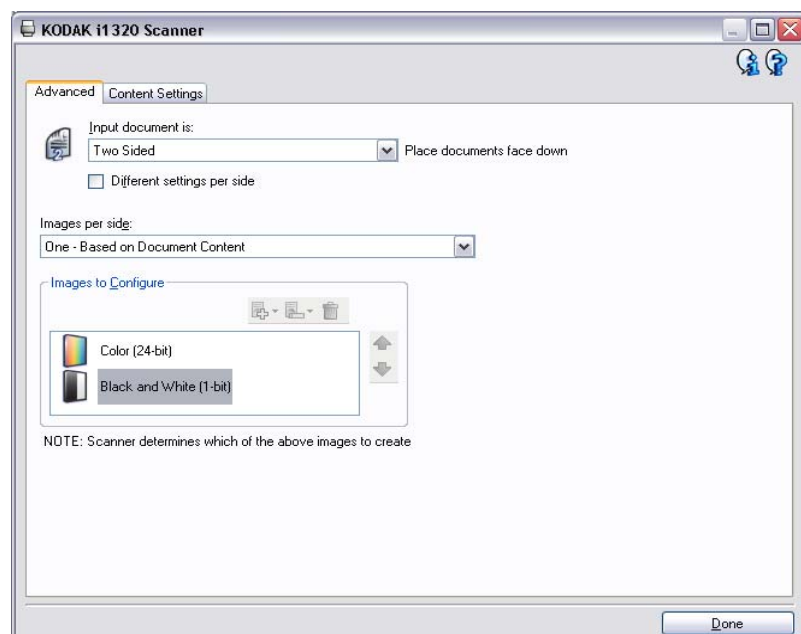
Setting up automatic color detection - Example 1

In this example, let's assume you want to configure a two-sided document stream of mixed color business documents and want the scanner to output **either** a color or a black and white image for each side of a document based on the scanner detecting the amount of color in each image. To configure this correctly do the following:

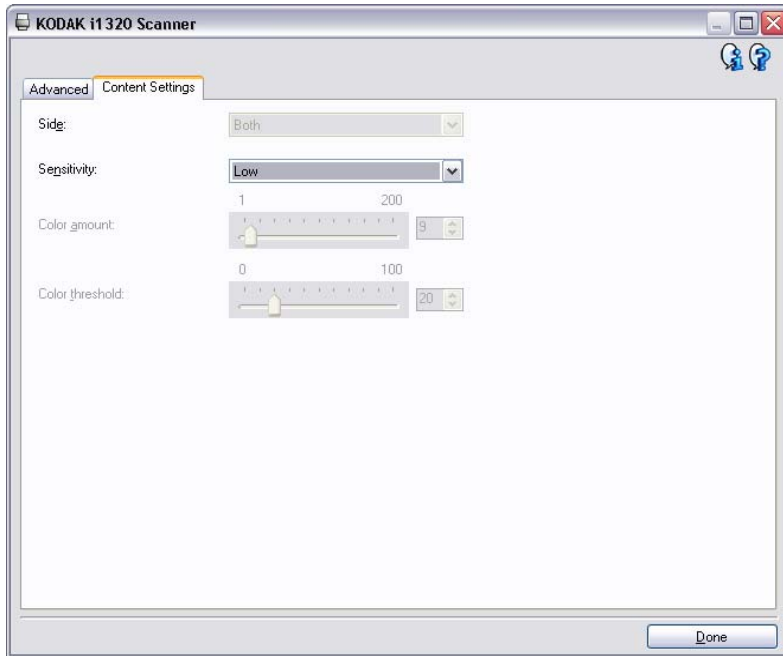
1. Click **Advanced** on the Image Settings window to display the Advanced tab.
2. Select **Two Sided** from the *Input document is* drop-down box.
3. Make sure that the **Different settings per side** checkbox is not checked.
4. Select **One – based on document content** from the *Images per side* drop-down box. The *Images to Configure* area will now be displayed on the Advanced tab and will contain a *Color* image item and a *Black and White* image item. The Content Settings tab will also be displayed.
5. If you want a grayscale image to be delivered instead of a color image when enough color is detected in the document, click the **Change** icon and select **Grayscale**.



6. Click the **Content Settings** tab. Unless you have selected the *Different Settings per side* checkbox in Step 3, the *Side* drop-down box on the Content Settings tab will read **Both** and be grayed out.
7. Click on the *Sensitivity* drop-down box and select the sensitivity you want the scanner to use when looking for color in each document. **Low** is the default, and will produce the fewest color images in the document stream, while Medium and High will increase the number of color documents produced. When finished, the Advanced tab will look like this:



and the Content Settings tab will look like this:

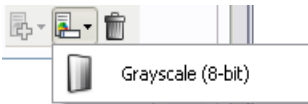


8. Click **Done** to return to the Image Settings window.
9. If you look on the Image Settings window, the *Side* drop-down box will now have two entries: **Both: Color (24 bit)** and **Both: Black and White (1bit)**. Select one side and adjust the settings on the rest of the tabs of the Image Settings window (General, Size, Adjustments and Enhancements).
10. Then select the other side and make the appropriate selections for that type of image. You may want to scan a test document using the Preview window while you make these changes.
11. Save your Setting Shortcut and scan your test documents using the Setting Shortcut you just set up. Review the resulting images to determine if the scanner is detecting and outputting color documents the way you want them. If you need to improve the results, repeats Step 7-10, (changing the sensitivity setting), until the get the results you want.

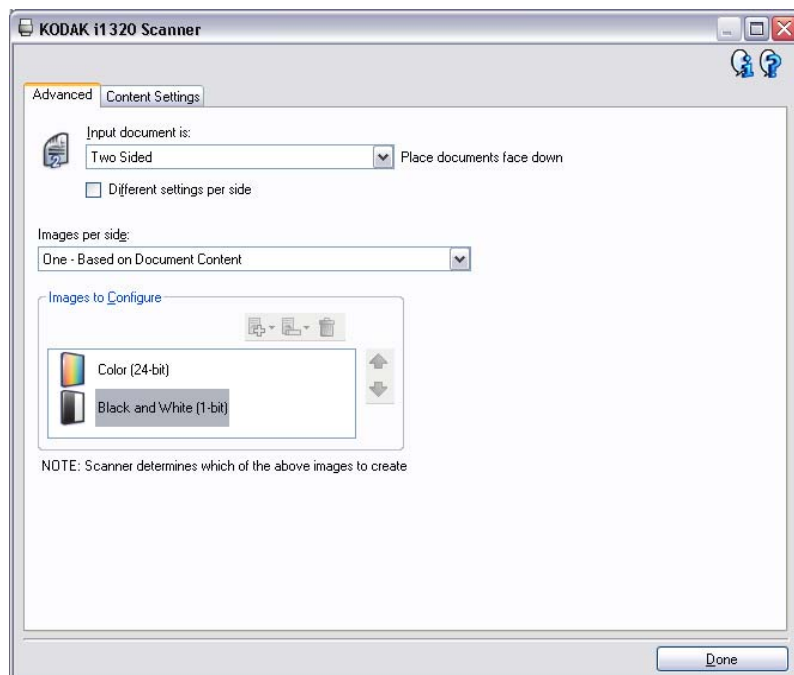
Setting up multiple images for each side of a document (dual stream) - Example 2

In this example, let's assume you want to configure a two-sided document stream of mixed color business documents and want the scanner to output **both** a color and a black and white image for each side of a document.

1. Click **Advanced** on the Image Settings window to display the Advanced tab.
2. Select **Two Sided** from the *Input document is* drop-down box.
3. Make sure that the **Different settings per side** checkbox is not checked.
4. Select **Multiple** from the *Images per side* drop-down box. The *Images to Configure* area will now be displayed on the Advanced tab and will contain a *Color* image item.
5. If you want a grayscale image to be delivered instead of a color image when enough color is detected in the document, click the **Change** icon and select **Grayscale**.



6. Click the **Add** button to add an image stream. Choose **Black and White**. A black and white image item is now added to the *Image to Configure* area on the Advanced tab.
7. The scanner will produce two images for each side of the page, but in the order they are listed in the *Images to Configure* area. The first image to be delivered by the scanner to the scanning application is listed on the top and the second is listed on the bottom. If you need to change the order for your application, click the **Move up** or **Move down** arrows on the side of the *Images to Configure* area. When finished the Advanced tab will look like this:



8. Click **Done**.

9. If you look on the Image Settings window, the *Side* drop-down box will now have two entries: **Both: Color (24 bit)** and **Both: Black and White (1bit)**. Select one side and adjust the settings on the rest of the tabs of the Image Settings window (General, Size, Adjustments and Enhancements).
10. Then select the other side and make the appropriate selections for that type of image. You may want to scan a test document using the Preview window while you make these changes.
11. Save your Setting Shortcut and scan your test documents using the Setting Shortcut you just set up. Review the resulting images to determine if the scanner is detecting and outputting color documents the way you want them. If you need to improve the results, repeat the steps above until the get the results you want.

Using different settings for each side of a document - Example 3

By default, image settings you select using the TWAIN datasource are applied to both sides of a two-sided document. For more advanced or complex needs, you may need to have different configurations for each side of the document. By clicking the **Different settings per side** checkbox, the *Front* and *Back* selections in the *Side* drop-down box on the *Image Settings* window are available.

Images for each side of a document (dual-stream) - Example 4

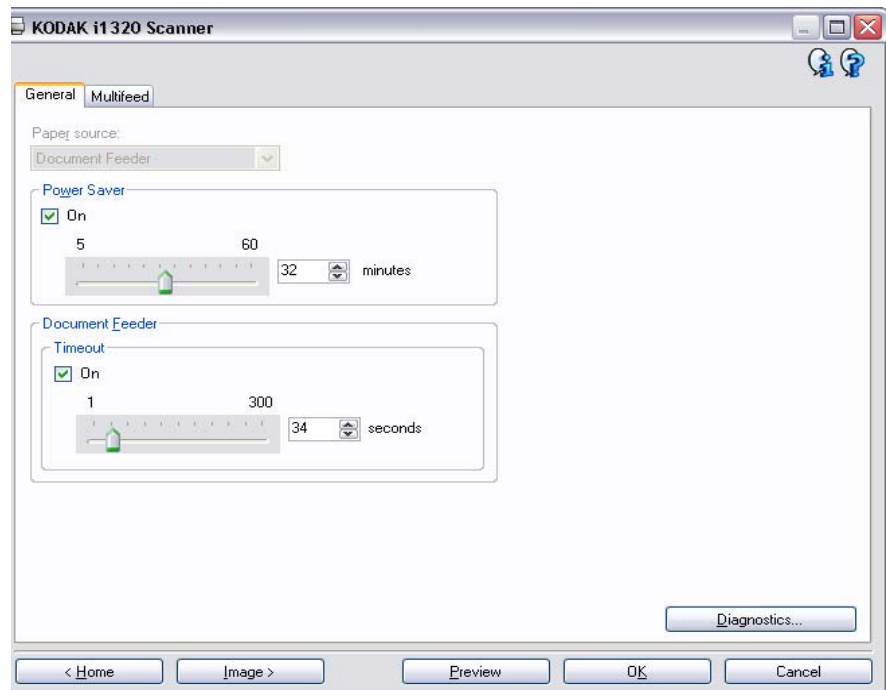
In this example, let's assume you want to configure a two-sided document stream of business documents that have color on the front of the document but the rear side is fine in black and white.

1. Click **Advanced** on the Image Settings window to display the Advanced tab.
2. Select **Two Sided** from the *Input document is* drop-down box.
3. Check the **Different settings per side** checkbox.
4. Select **One** from the *Images per side* drop-down box.
5. Click **Done** to return to the Image Settings window.
6. If you look on the Image Settings window, the *Side* drop-down box now has two entries: **Front** and **Back**. Select the **Front** side and make sure the *Scan As* drop-down box on the General tab is set to **Color (24 bit)**. Make any other adjustments to the front side settings on the rest of the tabs on the Image Settings window (General, Size, Adjustments and Enhancements). You may want to scan a challenging test document using the Preview window while you make these changes so you can see the effect they have.
7. Select the **Back** side and make sure the *Scan As* drop-down box on the General tab is set to **Black and White (1 bit)**. Make any other adjustments to the back side settings on the rest of the tabs of the Image Settings window. You may want to scan a challenging test document using the Preview window while you make these changes.
8. Save your Setting Shortcut and scan your test documents using the Setting Shortcut you just set up. Review the resulting images to determine if the scanner is detecting and outputting color documents the way you want them. If you need to improve the results, repeat the steps above until the get the results you want.

NOTE: Other options may appear in the *Images per side* drop-down list. These options are available to provide compatibility with certain specialized scanning applications and normally are not used. Do not use these options unless instructed to by Kodak personnel.

The Device Settings window

The Device button is located on the Image Settings window. When you select **Device**, the General and Multifeed tabs are displayed. From the Device Settings window, you can also access Diagnostics.



General tab

The General tab allows you to set scanner-specific transport control options.

Paper Source — select the desired paper source.

- **Automatic:** looks for paper in the document feeder first. If there are no documents in the input tray, the scanner will look for a document on the flatbed.
- **Document Feeder:** when you are scanning documents from the input tray.
- **Flatbed:** when you are scanning documents using the flatbed.

Power Saver — allows you to set the amount of time the scanner will remain inactive before the scanner goes into an idle state. You can turn the Power Saver option off or set a time up to 60 minutes. The default is 15 minutes.

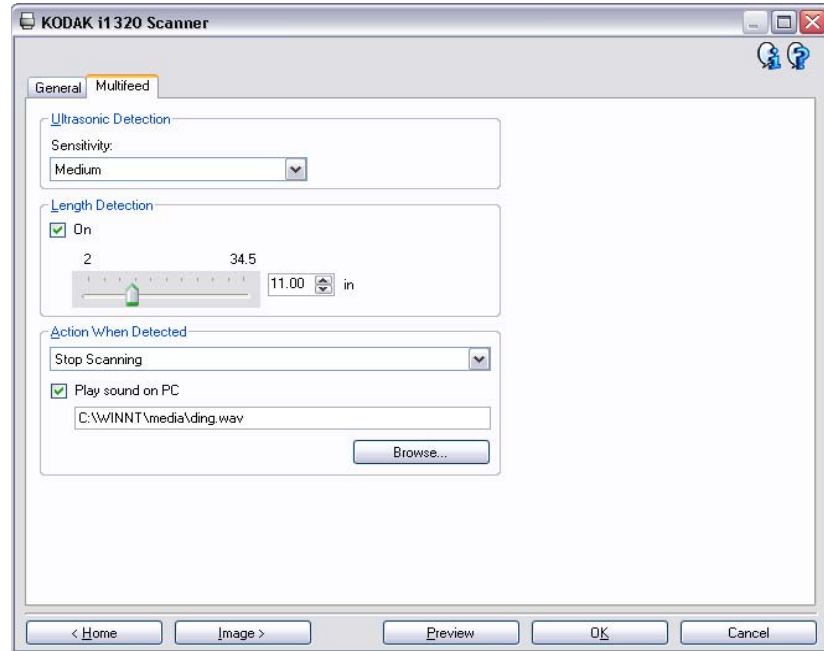
Document Feeder

- **Timeout:** if you enable this option, you can set the amount of time the scanner will wait (1 to 300 seconds) after the last document enters the transport before the scanner initiates the action you selected when the timeout occurs.

Diagnostics — provides access to the Diagnostics tab.

Multifeed tab

Multifeed detection aids in document processing by detecting documents that may go through the feeder overlapped.



Sensitivity — controls how aggressively the scanner will work to determine if more than one document is fed into the transport. Multi-feeds are triggered by detecting air gaps between documents. This allows multi-feed detection to be used with job sets containing documents with mixed thicknesses. You may set the Multi-Feed Detection to **High**, **Medium** or **Low** sensitivity. If you select **None**, no multifeed detection will occur.

- **Low**: least aggressive setting and is less likely to detect labels, poor quality, thick or wrinkled documents as multi-fed documents.
- **Medium**: use Medium sensitivity if your application has varying document thickness or labels attached to the document. Depending on the label material, most documents with labels should not be detected as a multi-fed document.
- **High**: most aggressive setting. This is a good setting to use if all documents are similar in thickness to 20-lb. Bond paper.

Length Detection — choose the minimum length of the document that can be scanned with a multi-feed being detected. A value of 0 indicates no length detection. Length detection can be used when scanning same-size documents. The maximum value is 33.5 inches.

Action When Detected — select what action you want the scanner to take when a multi-feed occurs. With all options, the error condition will be logged and if you have enabled a sound via the **Play sound on PC** option, the scanner will make the selected sound.

- **Stop Scanning:** when an overlap or multifeed is detected, the scanner automatically stops scanning and clears the paper path. Verify that the paper path has been cleared and restart the scan session from the scanning application.
- **Stop Scanning - leave paper in path:** when an overlap or multifeed is detected, the scanner automatically stops scanning. Clear any documents from the paper path and restart the scan session from the scanning application.
- **Continue Scanning:** when an overlap or multifeed is detected, the scanner will make a sound (if enabled) and continue to scan.

Play sound on PC — check this option if you want the scanner to make a sound when a multi-feed is detected. You can click the **Browse** button to select the desired .wav file.

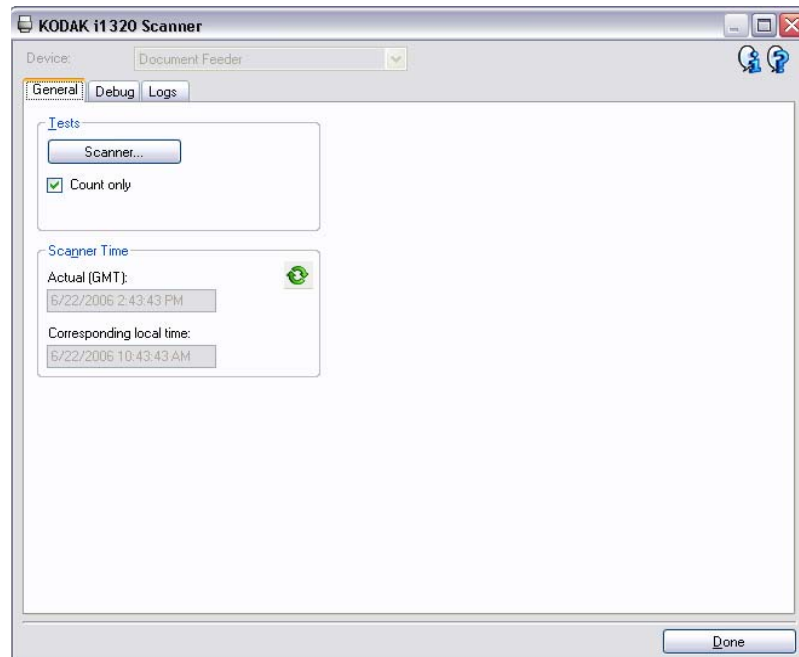
The Diagnostics window

The Diagnostics button is located on the Device Settings window. When you select **Diagnostics**, you will have access to the General, Debug and Logs tabs.

When finished viewing or making a change on one of these tabs, you can click the **Done** button and return to the Device Settings window.

General diagnostics tab


The General tab allows you to perform a scanner test and provides the scanner time. While similar to the test that the scanner goes through during power-on, this test is more extensive. If you have an optional A4 flatbed accessory attached, the *Device* drop-down box in the upper left corner of the window will be enabled. You can choose either the **Document Feeder** or **Flatbed** test.



Tests

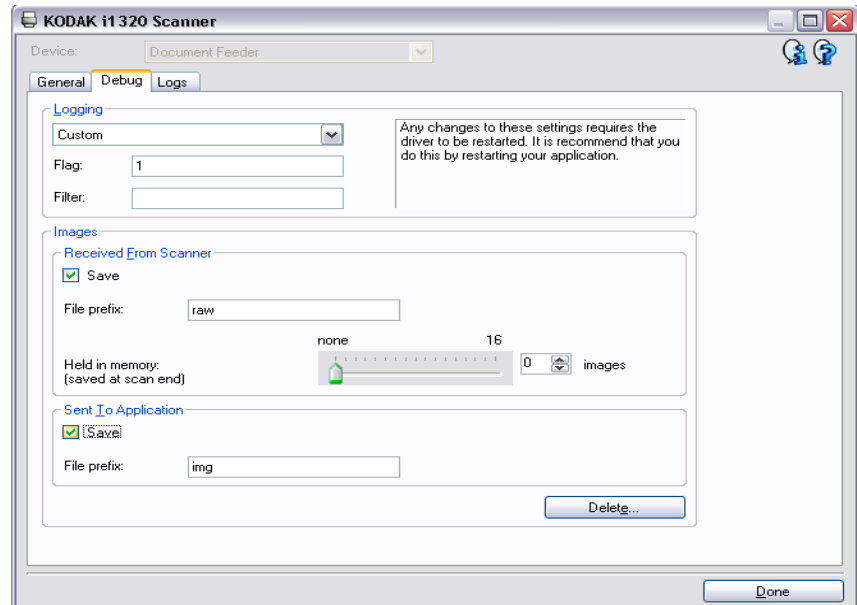
- **Scanner** — similar to, but more extensive than, a power-on self test, clicking this button will put the device through a series of checks to determine that all the scanner hardware is working.
- **Count only** — check this box if you want to count the number of documents entering the scanner transport without actually sending the images to a scanning application.

Scanner Time

- **Actual (GMT):** displays the Greenwich Mean Time.
- **Corresponding local time:** displays the local time.
- **Refresh icon**  : redisplay the current scanner time.

Debug tab

The Debug tab allows you to store the communications between the scanner and a scanning application to a file that can be reviewed later. In addition, the resulting images (both before and after image processing has been done) can be saved as well.



Logging — saves the communications between the scanner and a scanning application to a file for later review. Click the drop-down box to select from **Off** (the default), **On** or **Custom**. It is suggested that you do not use the Custom setting, unless directed to do so by Kodak support personnel.

Flag — by default, this is 1. Leave the flag at 1 unless instructed to use another value by Kodak support personnel.

Filter — captures only those items in the scanner to the application communication stream desired and filters out anything else. Options are x, y and z.

Images - Received from the Scanner — normally, it is not necessary to save the images received from the scanner before your selected image processing options are applied. Use this checkbox when instructed by Kodak support personnel.

- **Save:** click this checkbox to save raw images from the scanner (before image processing is applied).
- **File prefix:** use a relevant file prefix to more easily find and sort the saved images. **Raw** is the default.
- **Held in memory:** determines the number of images to save before the images are overwritten. Normally, only one or two are needed. Adjust as necessary.

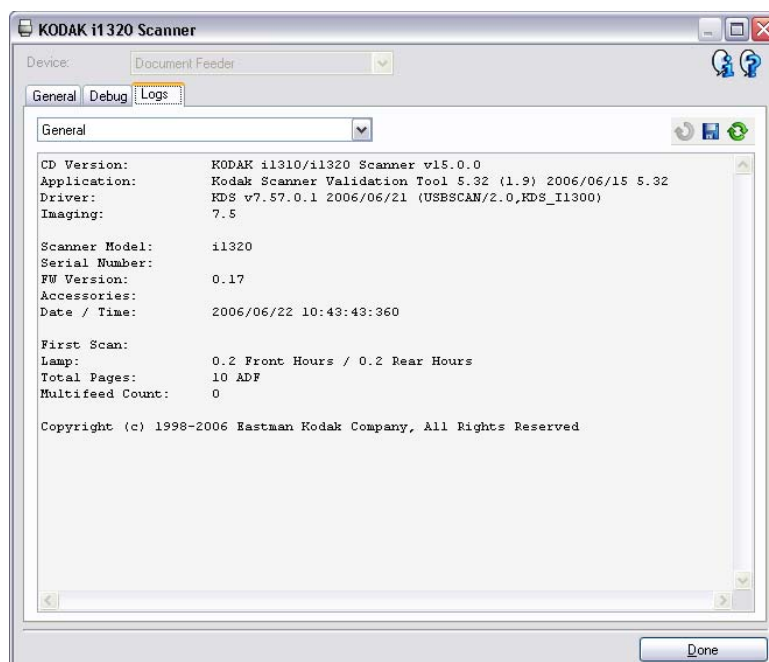
Images - Sent To application


- **Save:** click this checkbox to save final images from the scanner (after image processing is applied).
- **File prefix:** use a relevant file prefix to more easily find and sort the saved images. Img is the default.

Delete — deletes any images that have been saved from previous jobs.

Logs tab

The Logs tab allows you to view scanner hardware information, general information or the stored communications between the scanner and a scanning application. The later option requires that Logging be turned on in the Debug tab of the Device Settings window. To view a particular log, click the drop-down box in the upper left-hand corner and select a log type. By default, only the General and Operator logs are displayed.



Save As icon  — if you want to save the logs you see on the Logs tab for later viewing outside of the TWAIN datasource, click the **Save as** icon in the upper right-hand corner. If you enabled saving raw and final images on the Debug tab, those images will also be saved with the logs in a file.

Using the ISIS Driver

The ISIS Driver is software that communicates with the scanner. This driver is created and maintained by EMC Captiva and is provided with the scanner by Kodak. Many scanning applications support ISIS drivers and this driver can be used to interface with them.

This section provides descriptions of the options on the tabs of the main ISIS Driver window and how to set these options.

For the purpose of this manual, all displayed windows assume the features available on the *Kodak i1220/i1320* Scanners. If you have a *Kodak i1210* or *i1310* Scanner, all options are limited to one-sided scanning only.

See the section entitled, “Starting the Scan Validation Tool” earlier in this chapter to access the main ISIS Driver window.

The main ISIS Driver window

The main ISIS Driver window provides a set of 9 tabs. You can select each of these tabs and make any choices necessary to meet your scanning needs. The buttons on the bottom of the window apply to all the tabs.

Default — when you select **Default**, the values will be reset to the factory defaults.

Copy — this function is only available when scanning two-sided documents. The Copy button provides a convenient way to set up the color, grayscale or black and white image settings on one side and transfer them to the other. For example, if you highlight and set up **Front Image #1**, you can use the Copy button to duplicate those settings for Back Image #2.

OK — saves the values set on all tabs.

Cancel — closes the window without saving any changes.

Main tab

The Main tab provides the following options:

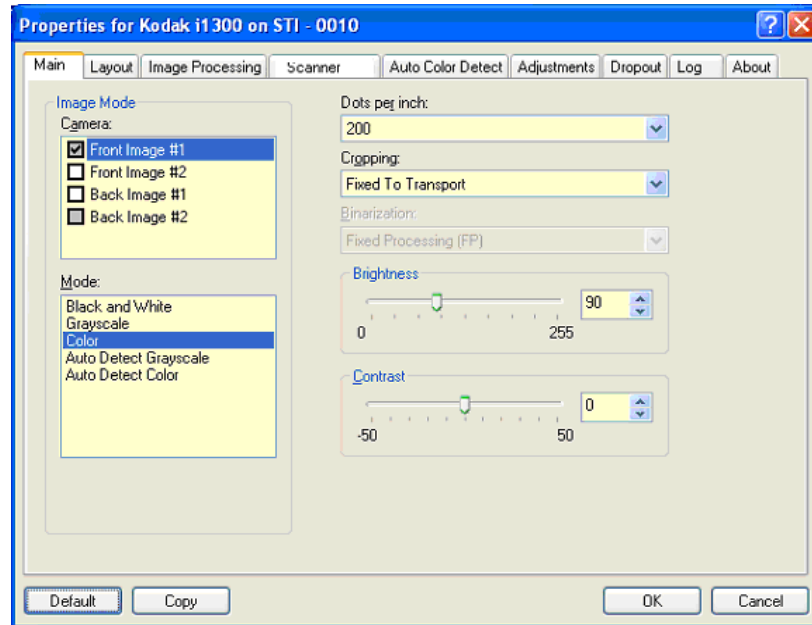


Image Mode

Camera — the selections in the Camera box list the available sides (front and back) of an image where you can define individual image processing values. Options include: Front Image #1, Front Image #2, Back Image #1 and Back Image #2.

The *Kodak* Scanner drivers allow you to control the camera settings independently. Some settings apply only to black and white images, others apply to color/grayscale images. By selecting the appropriate camera and image mode, you can control the scanner's output.

Mode — provides the following options:

- **Black and white:** if you want your electronic image to represent all elements of your document in black and white.
- **Grayscale:** if you want your electronic image to have a range of varying shades of gray from black to white.
- **Color:** if you want your electronic image to be in color.
- **Auto Detect Grayscale:** sets auto color detect for grayscale. See the section entitled, "Auto Color Detect tab" for more information.
- **Auto Detect Color:** sets auto color detect for color. See the section entitled, "Auto Color Detect tab" for more information.

Dots per inch (dpi) or resolution — indicates the scanning resolution, which largely determines the quality of the scanned image. The greater the resolution, the better the reproduction. However, scanning at a higher resolution also increases scanning time and file size.

Choose a resolution value from the drop-down list. The default is 200 dpi. Available resolutions are: 75, 100, 150, 200, 240, 300, 400, 600 and 1200 dpi.

Cropping — allows you to capture a portion of the document being scanned. All cropping options can be used with color/grayscale and black and white images. Front and Back cropping are independent, however, for dual stream scanning, color/grayscale and black and white cropping must be the same per side. Only one cropping option can be assigned per image. Select one of the following options:

- **Automatic:** dynamically adjusts the cropping window for different document sizes based on the edges of the image.
- **Aggressive:** eliminates any residual black border on any image edges. In order to achieve this, there is a possibility that a small amount of image data from the edge of the document may be lost.
- **Fixed to Transport:** (used for batches of same-sized documents) allows you to define the area to be imaged. Fixed to Transport cropping is used in conjunction with paper size and page layout and assumes you are center-feeding your documents. If you are not using center feeding, you must select the Layout tab to define your scan area. See the section entitled “Layout tab” later in this chapter.
- **Relative to Document:** (zone processing): (used for batches of same-sized documents) — zone processing is a floating fixed crop window (the zone) located relative to the upper left corner of a document. It allows you to select an area on the document to be delivered in either color/grayscale or black and white format (a separate window for both black and white and color/grayscale may be defined). Different parameters may be selected for both the front and back of the image.

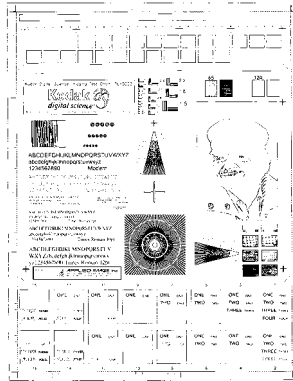
This option may be used in conjunction with Automatic cropping where a separate color/grayscale or black and white area to be saved is desired. It is useful in applications where a photograph, signature, embossment or seal appears in a consistent area for an application (you may want that small area in color/grayscale and the rest in black and white). To define a zone, select the Layout tab.

Binarization — these options work on grayscale images and outputs a black and white electronic image. Their strength lies in the ability to separate the foreground information from the background information even when the background color or shading varies, and the foreground information varies in color quality and darkness. Different types of documents may be scanned using the same image processing parameters and results in excellent scanned images.

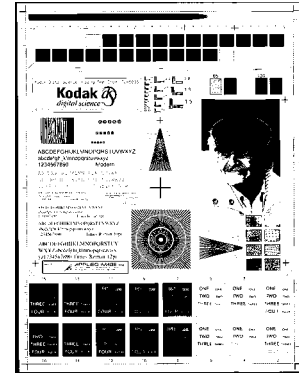
- **iThresholding:** allows the scanner to dynamically evaluate each document to determine the optimal threshold value to produce the highest quality image. This allows scanning of mixed document sets with varying quality (i.e., faint text, shaded backgrounds, color backgrounds) to be scanned using a single setting thus reducing the need for document sorting. When using iThresholding, only Contrast can be adjusted.
- **Fixed Processing (FP):** used for black and white and other high contrast documents. If Fixed Processing is selected, only Brightness can be adjusted.

- **Adaptive Thresholding (ATP):** separates the foreground information in an image (i.e., text, graphics, lines, etc.) from the background information (i.e., white or non-white paper background). When using Adaptive Thresholding, Brightness and Contrast can be adjusted.

Brightness — changes the amount of white in the color and grayscale image. Use the slider to select a value from 0 to 255. The default is 90.



Brightness: 50



Brightness: 127

Contrast — adjusts the difference between black and white, thereby making an image sharper or softer.

The difference between black and white is small with a low contrast setting, so the image is softer. With a high contrast setting, the difference between black and white is large, so the image is clearer. Select a contrast value from 1 to 100. The default is 50.

Contrast 1

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 Modern

Contrast 60

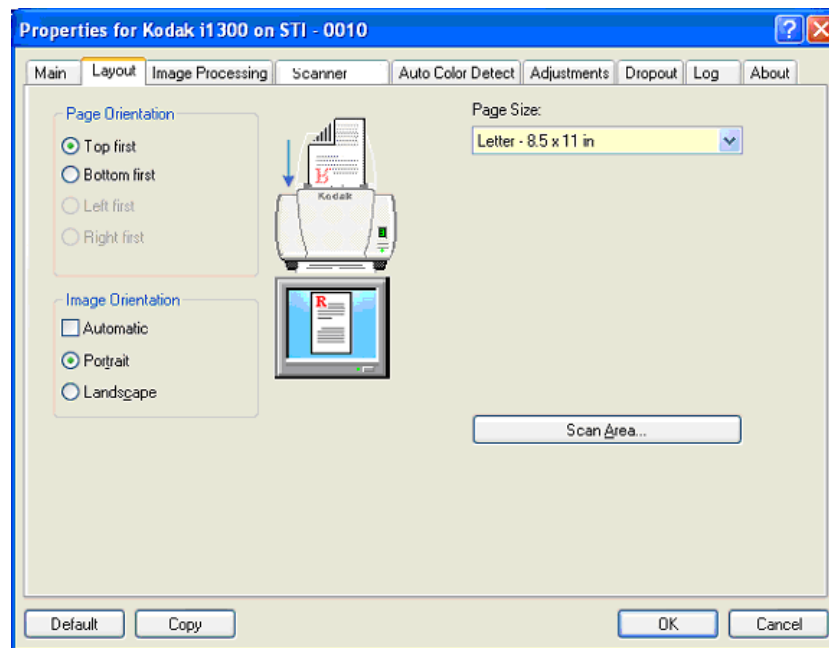
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 Modern

Contrast 100

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 Modern

Layout tab

The Layout tab provides these options:



Page Orientation — allows you to select the way you place your documents in the scanner, **Top First**, **Bottom First**, **Left first** or **Right first**. When using the *Kodak i1200/i1300* Scanners, select **Top First**.

Image Orientation

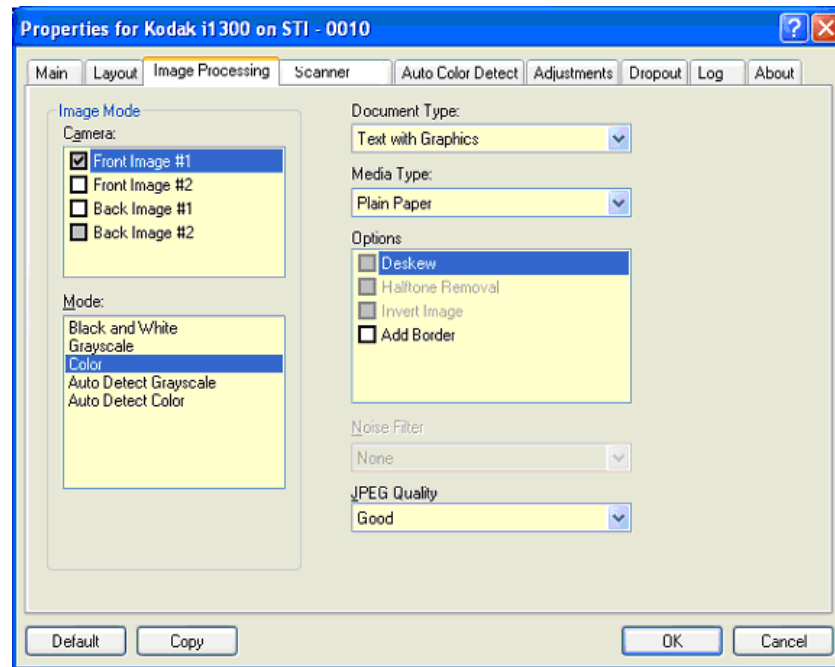
- **Automatic:** if you select **Automatic**, the Page Orientation options are not available.
- **Portrait:** displays the image orientation in the shape of a conventional portrait, where height is greater than width.
- **Landscape:** displays the image orientation in the shape of a conventional landscape painting, where width is greater than height.

Page size — the default page size is set when a scanner is first selected. You can choose a different page size using the drop-down list box.

Scan Area — displays the Scan Area dialog box. The Scan Area options are only available for images when the cropping option is **Fixed to Transport** or **Relative to Document**. See the section entitled "Defining the scan area" later in the chapter for more information.

Image Processing tab

The Image Processing tab displays the Image Mode and Mode information that was previously described. Refer to the section entitled “The main ISIS Driver tab” earlier in this chapter for descriptions.



Document Type - select one of the following based upon the documents you are scanning:

- **Text**: when the documents you want to scan contain mostly text.
- **Text with Graphics**: when the documents you want to scan contain a mix of text, business graphics (bar graphs, pie charts, etc.) and line art.
- **Photographs**: when the documents you want to scan are comprised mainly of photos.
- **Text with Photographs**: when the documents you want to scan contain a mix of text and photos.

Media type — select one of the following options based upon the texture/weight of the paper you are scanning. Available options are: Plain Paper, Thin Paper, Glossy Paper, Card Stock, Magazine.

Options

- **Deskew** — automatically straightens a document within ± 0.3 degrees of the leading edge of the document. Deskew can detect up to a 45-degree skew and correct up to a 24-degree angle at 200 dpi or a 10-degree skew angle at 300 dpi. This option is not available when **Fixed to Transport** or **Relative to Document** is selected.

NOTE: To prevent data loss, the document must have all four corners within the image path.

- **Halftone Removal** — enhances images containing dot matrix text and/or images with shaded or colored backgrounds using halftone screens and effectively eliminates noise caused by the halftone screen.

- **Invert Image** — defines whether the image should be stored in black on a white background or white on a black background. The default is **Black on White**. If you want white on a black background, check this option.



Black on White



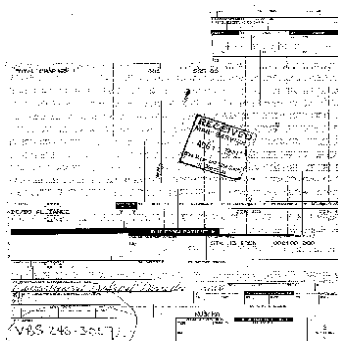
White on Black

- **Add Border** — allows you to add a fixed amount of border to the left, right, top and bottom edge of the image.

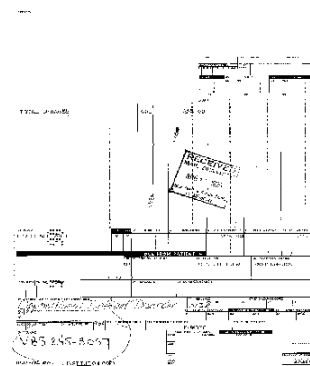
Noise Filter — occasionally small dots or specks appear in the background of a scanned image. These specks increase file compression size and usually contain no image information. Using the Noise Filter on documents containing very fine detail (e.g., the dot on an "i" in 4-point type) may cause information to be lost. It is recommended that you do not use the Noise Filter when scanning documents with text smaller than 7-point type.

Noise Filter can be used with black and white images only and is Front/Back independent. Choose **None**, **Lone Pixel** or **Majority Rule**.

- **Lone Pixel**: reduces random noise on black and white images by converting a single black pixel surrounded by white to white or by converting a single white pixel surrounded by black to black.
- **Majority Rule**: sets the central pixel value in a matrix according to the majority of white or black pixels in a matrix.



No Noise Filter Used



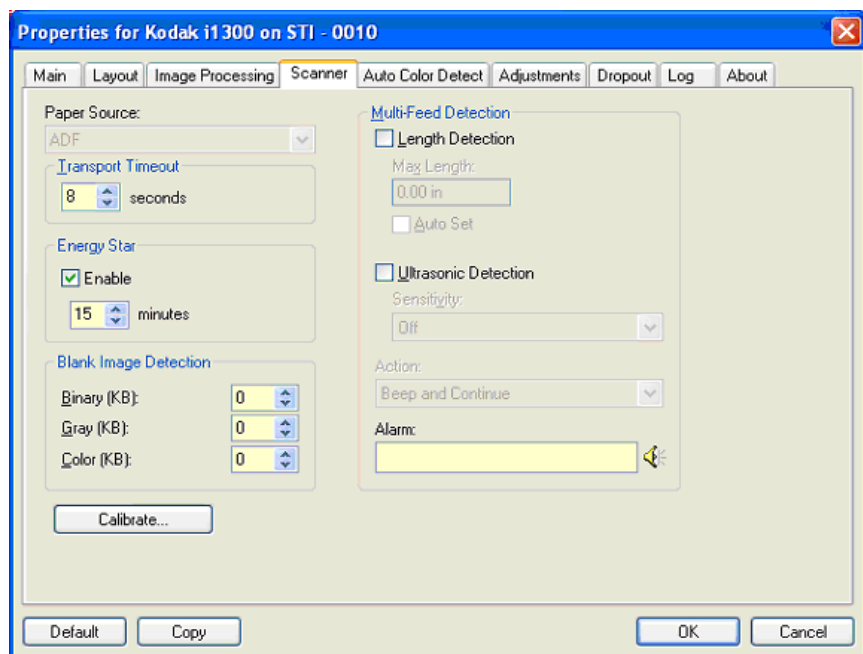
Lone Pixel

JPEG (Joint Photographic Editor Group) **Quality** — this group developed and lent their name to a file compression standard for color and grayscale images that is widely used by scanners, digital cameras and software applications. On Microsoft Windows-based systems, a file with the extension .jpg has normally been compressed using this standard. JPEG compression offers a JPEG quality of **Draft**, **Good**, **Better**, **Best** and **Superior**.

- **Draft:** smallest file size with draft image quality.
- **Good:** larger file size with good image quality.
- **Better:** larger file size with better image quality.
- **Best:** larger file size with the best image quality.
- **Superior:** largest file size with superior image quality.

Scanner tab

The Scanner tab provides the following options.



Paper Source — select the desired paper source:

- **ADF:** if you are scanning documents from the input tray.
- **Flatbed:** if you are scanning documents using the flatbed.

Transport timeout — allows you to set the amount of time the scanner will wait after the last document enters the transport before the transport timeout action is taken. You can specify a time delay setting from 1 to 300 seconds.

Energy Star — allows you to set the amount of time the scanner will remain inactive before the scanner goes into an idle state. Choices are: 0 to 60 minutes.

Blank image detection — select the image size (KB), below which an image is determined to be blank. Images with sizes less than the number you select will not be created. If you use this option, you must specify a blank image size for each image type (**Binary**, **Gray** and **Color**) you want to delete. If you do not make an entry in these fields, all images are kept.

Multi-feed Detection options

Length Detection — this option can be enabled or disabled. The default is disabled. If enabled, select the maximum length of the document that can be scanned without a multi-feed being detected. Length detection is used when scanning same-sized documents to check for overlap. For example, if you are scanning 8.5 x 11-inch (A4) documents in portrait mode, enter a value of 11.25 inches (28.57 cm) in the *Maximum Length* field. The maximum value is 13.99 inches (35.56 cm).

- **Auto Set:** automatically sets the maximum length value to .50-inch (1.27 cm) greater than the length of the currently selected page size.

Ultrasonic Detection — check this option to set multi-feed detection.

Sensitivity — controls how aggressively the scanner will work to determine if more than one document is fed into the transport. Multi-feeds are triggered by detecting air gaps between documents. This allows multi-feed detection to be used with job sets containing documents with mixed thicknesses. You may set the Multi-Feed Detection to High, Medium or Low sensitivity.

- **Low:** the least aggressive setting and is less likely to detect labels, poor quality, thick or wrinkled documents as multi-fed documents.
- **Medium:** use Medium sensitivity if your application has varying document thickness or labels attached to the document. Depending on the label material, most documents with labels should not be detected as a multi-fed document.
- **High:** the most aggressive setting. This is a good setting to use if all documents are similar in thickness to 20-lb. Bond paper.

Action — select an option of how you want the scanner to perform if it detects a multi-fed document.

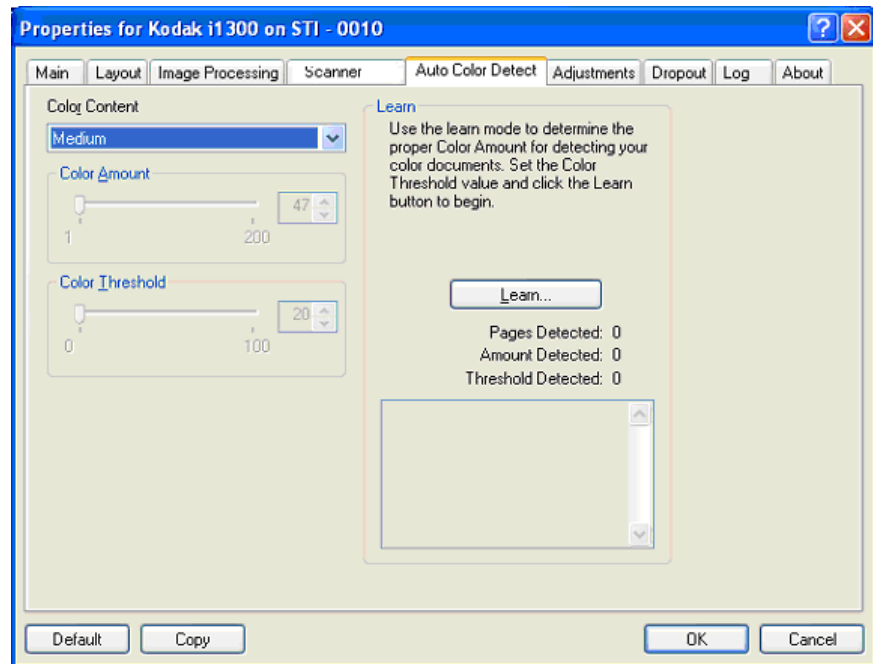
- **Beep and continue:** if selected, the scanner will beep, display and log the condition but continue to operate.
- **End of Job:** if selected, the scanner log the condition and stop the feeder and transport (the scanner will be disabled).

Alarm - select this option if you want the scanner to make a sound when a multi-feed is detected. You can click the **Speaker** icon to display the Open dialog box. From the Open dialog box, select the desired .wav file and click **OK**.

Calibrate — the *Kodak i1200/i1300* Scanners automatically calibrate. This option is available if a Kodak representative directs you to calibrate the scanner using this option.

Auto Color Detect tab

The Auto Color Detect tab provides the following options.



Color Content — options are None, Low, Medium, High, and Custom.

- **Low:** documents require only a small amount of color to be saved as color or grayscale images. Used for capturing documents that are primarily black text with small logos, or contain small amounts of highlighted text or small colorful photos.
- **Medium:** documents require more color, as compared with the Low option, before they are saved as color or grayscale images.
- **High:** documents require more color, as compared with the Medium option, before they will be saved as color or grayscale images. Used for distinguishing documents containing medium- to large-size colorful photos from plain black text. Photos with neutral colors may require adjustments to the Color Threshold or Color Amount values in order to be captured correctly.

- **Custom:** makes the **Color Amount** and/or **Color Threshold** options available.

NOTE: When setting Auto Color Detect values, it is suggested that you start with the **Medium** option and scan a typical job set. If too many documents were returned as color/grayscale vs. black and white, then change to the **High** option and re-run the job. If too few documents were returned as color/grayscale vs. black and white, then change to the **Low** option and re-run the job. If none of these options provide the desired result, select **Custom** option to manually adjust Color Amount and/or Color Threshold.

Color Amount: the amount of color that needs to be present in a document before it will be saved as either color or grayscale. As the value of Color Amount increases, more color pixels are required. Valid values are 1 to 200.

Color Threshold: the color threshold or intensity (i.e., pale blue vs. dark blue) at which a given color will be included in the color amount calculation. A higher value indicates that a more intense color is required. Valid values are 0 to 100.

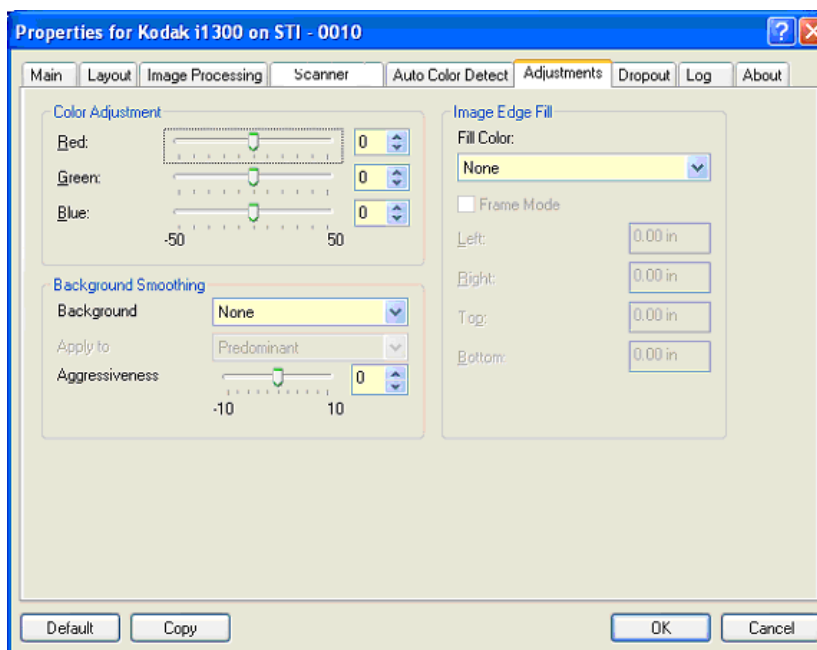
Learn — if **Low**, **Medium** and **High** options do not give you the desired results, use the **Learn** option.

1. Click **Learn** and follow the prompts.
2. Place at least 5 representative color documents in the input tray and click **OK**. These documents will be analyzed and the recommended color amount will be calculated for you.
3. Write down the **Color Amount** and **Color Threshold** values that are displayed in the dialog box as these are the settings you will be required to use in your application.

NOTE: These settings were calculated based on the representative color documents scanned. If these values do not provide the desired results with your production job set, you may need to manually adjust the **Color Threshold**.

Adjustments tab

The Adjustments tab provides the following options.



Color Adjustment

Red — changes the amount of red in the color image.

Green — changes the amount of green in the color image.

Blue — changes the amount of blue in the color image.

- Adjust these settings by dragging the slider bar to the left or right, entering a value in the text box or using the up/down arrows.

Background Smoothing — use this option when you are scanning documents or forms with a colored background. Background Smoothing produces images with a uniform color. The benefit of using this option is improved image quality and reduced file size.

- **Background:** select one of the following:
 - **None** - no background smoothing will be done.
 - **Automatic** - background smoothing is applied to the actual color.
 - **Change to White** - identifies the background color and substitutes that color with white.
- **Apply to:** select one of the following options:
 - **Predominant** - smooths the predominant background color to white.
 - **Neutral** - smooths just the neutral color to white and two additional background colors.
 - **All** - smooths up to three background colors to white.
- **Aggressiveness** - select a value to increase or decrease the effect.

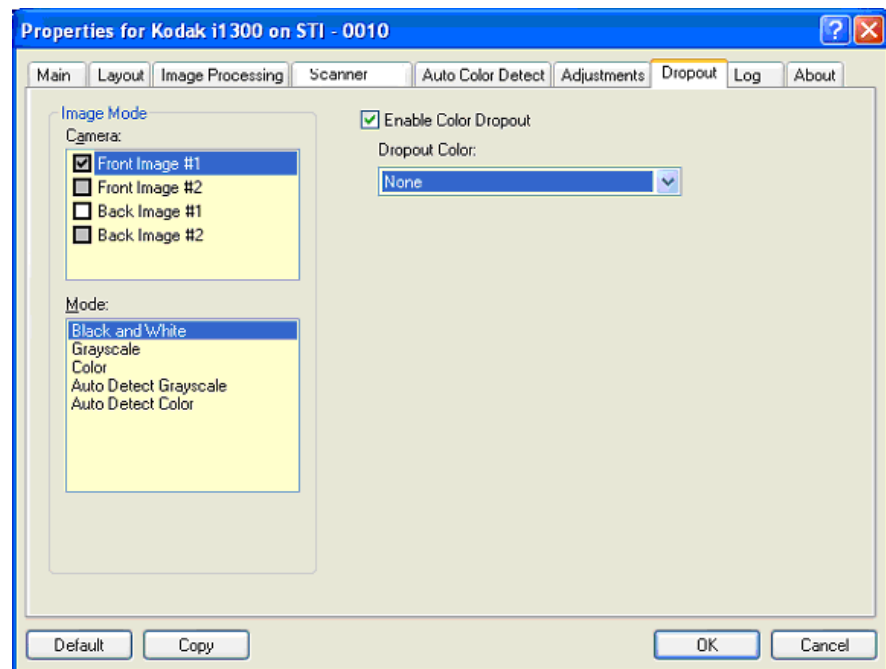
Image Edge Fill — fills the edges of a scanned image by covering the area with the color selected in the *Color* drop-down list. Image Edge Fill is performed after all other image processing options have been applied.

Frame Mode — fills in an equal amount of the selected color from the *Image Edge Fill* drop-down list on all sides of the image, or you can select a value in the **Top, Left, Right and/or Bottom** area(s) from each side of the scanned image to be filled.

When using this option, be careful not to enter a value too large as it could fill in image data that you want to keep.

Dropout tab

The Dropout tab displays the Image Mode and Mode information that was previously described. Refer to the section entitled, “The main ISIS Driver tab” earlier in this chapter for descriptions.

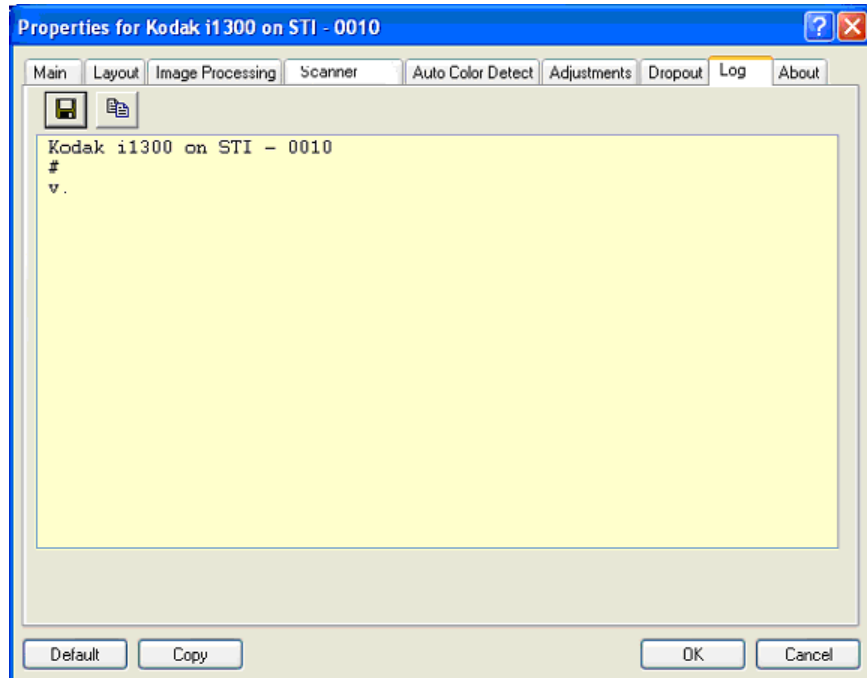


Electronic color dropout is used to eliminate a form's background so that a document management system may automatically — through OCR (Optical Character Recognition) and ICR (Intelligent Character Recognition) technology — read pertinent data without interference from the lines and boxes of the form. You can select the desired dropout color, and alter the filter threshold and background.

Enable Dropout Color — the i1200/i1300 Series Scanners can dropout red, green or blue. None is the default.

Log tab

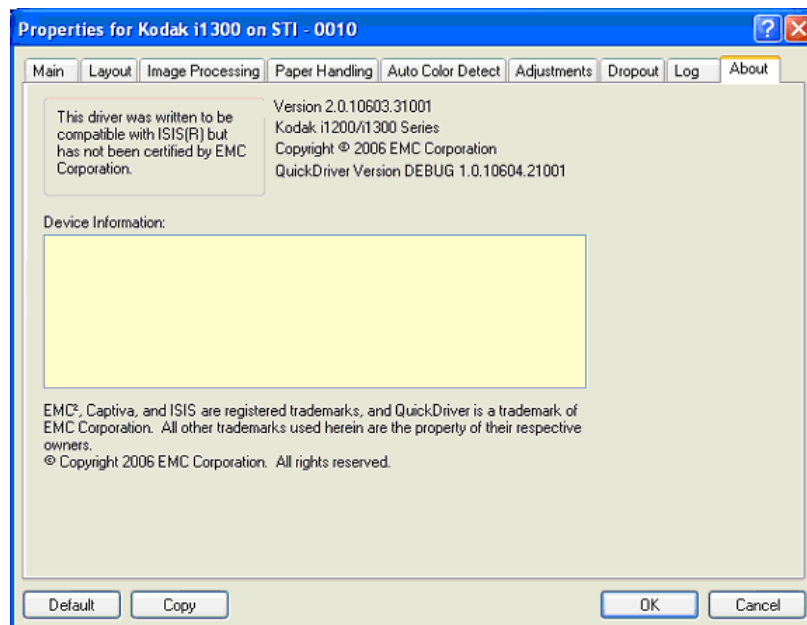
The Log tab provides a listing of any errors that have been encountered.



You can either save this information to a file by clicking the Save icon, or print the displayed information.

About tab

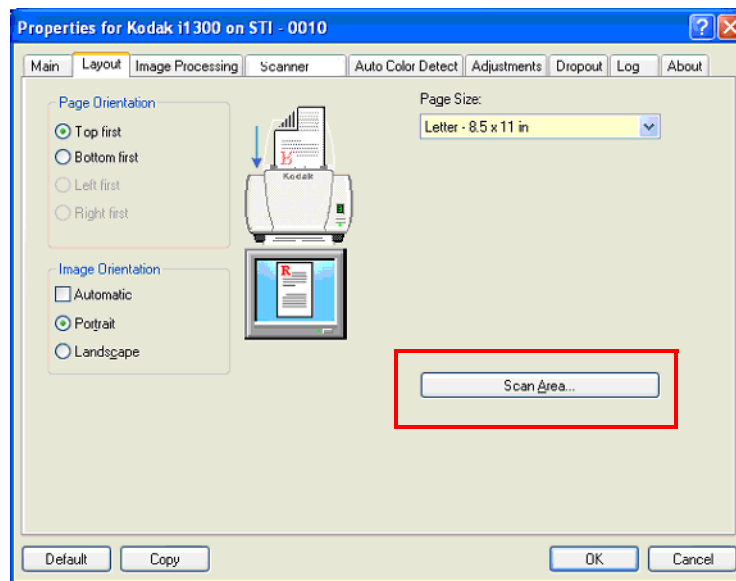
Displays information about your scanner and driver.



Defining the Scan area

The Scan Area dialog box is only available for images when the Cropping option selected on the Layout tab is either **Fixed to Transport** or **Relative to Document**.

To access the Scan Area dialog box, select **Scan Area** on the Layout tab.

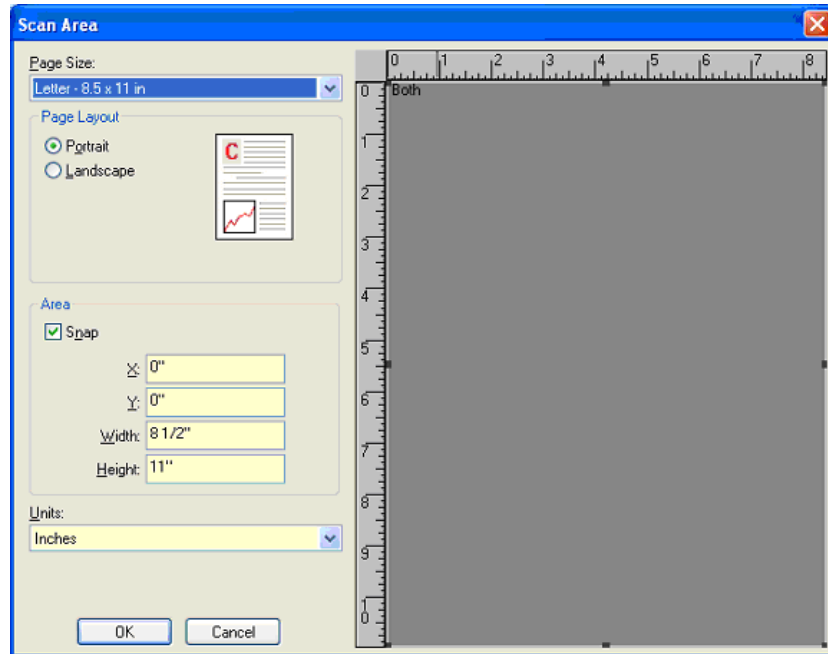


NOTE: Select the side and image to be defined by highlighting **Front Image #1**, **Front Image #2**, etc. based on the cropping option selected for each of these in the main ISIS Driver window. The scan areas defined for all camera selections are independent.

Scan Area dialog box

The Scan Area dialog box allows you to define the amount of image data which is returned to the host. The area can be defined in **Pixels**, **Inches** or **Centimeters**.

The Scan Area dialog box is only available when **Fixed to Transport** or **Relative to Document** is selected on the Scanner Settings dialog box.



Page Size — the default paper size is set when a scanner is first selected. You can choose a different paper size using the drop-down list box.

NOTE: Page Size and Page Layout selections also appear on the Layout tab. If you make a change on the Scan Area dialog box, the same selections appear on the Layout tab and vice versa.

The Page Layout area allows you to select either **Portrait** or **Landscape**.

- **Portrait** will display the image orientation in the shape of a conventional portrait, where height is greater than width.
- **Landscape** will display the image orientation in the shape of a conventional landscape painting, where width is greater than height.
- **Snap** — causes the dimensions of the Area box to be controlled in fixed 1/8-inch increments. This option is not available in **Pixels** mode

Area

- **X**: the distance from the left end of the scanner to the left-edge of the scanning area.
- **Y**: the position from the top end of the document to the top end of the scanning area.
- **Width**: the width of the scanning area.
- **Height**: the height of the scanning area.

Units — select whether you want the area to be defined in **Pixels**, **Inches** or **Centimeters**.

5 Maintenance

Cleaning the scanner

Your scanner needs to be cleaned periodically. If your documents do not feed easily, if several documents feed at the same time or if streaks appear on your images, it is time to clean your scanner. The section entitled, "Supplies and consumables" at the end of this chapter provides a listing of the supplies required to clean your scanner.

IMPORTANT: Use only non-flammable cleaners such as those provided through Kodak Parts Services. Do not use household cleaners and solvents.

Do not use cleaners in confined areas, use with adequate ventilation.

Do not use cleaners on hot surfaces. Allow surfaces to cool to ambient temperature before use.

Opening the scanner cover

- Press the scanner cover release lever and pull the scanner cover down.



- When you finish cleaning the scanner or replacing a part, close the scanner cover.

NOTE: The scanner cover cannot be opened when the input tray is in the closed position. The photo above shows the input tray has been removed. To remove the input tray, gently push the input tray to the right or left to release the pin from the slot, and lift the input tray out of position.

IMPORTANT: Only use the tilt feature when the scanner cover is closed.

Cleaning the rollers and transport

1. With a roller cleaning pad, wipe the feed rollers from side to side. Rotate the feed rollers to clean the entire surface.



IMPORTANT: The roller cleaning pad contains sodium lauryl ether sulfate which can cause eye irritation. Refer to the MSDS for more information.

2. Dry the rollers with a lint-free cloth.

Cleaning or replacing the separation module

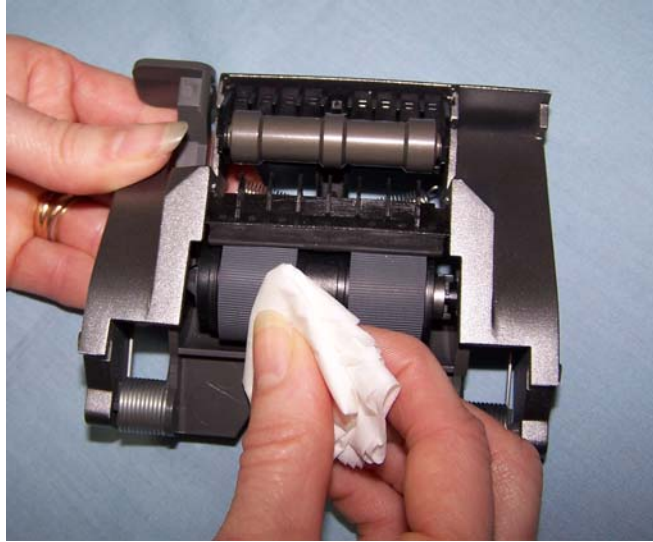
The separation module should be removed from the scanner for best cleaning results.

NOTE: When removing or cleaning the separation module, it may be easier to access the separation module if you remove the input tray. To remove the input tray, gently push the input tray to the left or right to release the pin from the slot, and lift it out of position.

1. Push the separation module release lever down and lift the separation module up and out of position.



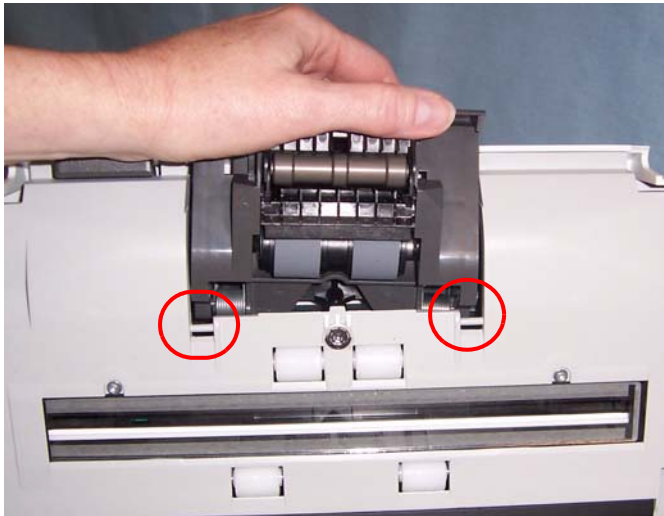
2. Manually rotate and wipe the separation module tires with a roller cleaning pad.



3. Inspect the separation module.

If the separation module tires show signs of wear or damage, replace the tires or the separation module. See the next section for procedures.

4. Insert the separation module by aligning the pins and placing it into position.



Replacing the separation module tires

The i1200/i1300 Series Scanners use high quality tires that were engineered to provide the ultimate in feeding reliability across the broadest range of document types, sizes and thicknesses. When the scanner is used in a normal office operating environment, the transport and tires are cleaned using approved cleaning solutions on a regular basis and the documents scanned are high quality 20 lb. bond office paper, the tires can last up to 200,000 scans on the separation module and 500,000 scans on the feed module. More difficult paper types, challenging operating environments, less frequent cleaning or cleaning the tires with alcohol or other strong solvents will cause reduced tire life. Paper types such as carbon paper and newsprint are particularly difficult and consistently making these documents a significant portion of your workload will certainly shorten tire life. When you notice degradation of feeder performance, multiple feeds, stoppages, etc., that are not resolved by following the cleaning procedures described in this chapter, you will need to change the tires.

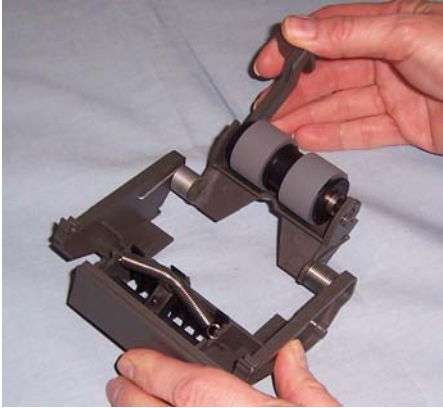
NOTE: Tire life and performance will vary based on your unique document set.

1. Remove the separation module.

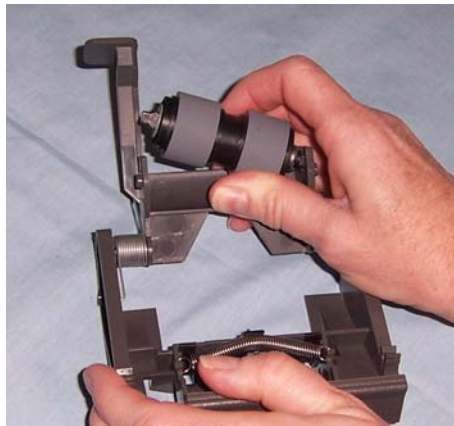


2. Holding onto the separation module, rotate the release lever back so you can access the separation roller.

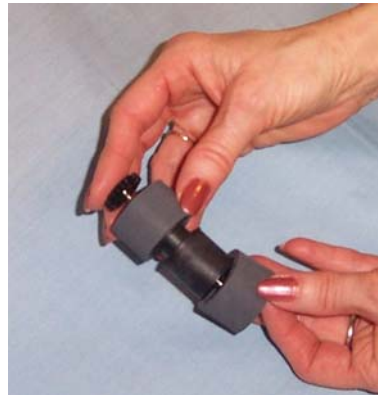
NOTE: Use caution as the separation module is spring-loaded and will snap back if you do not hold it in place.



3. Remove the separation roller from the separation module housing.



4. Remove each tire by sliding the tire off the core.



5. Install each new tire by gently pulling it over the core.
6. Replace the separation roller in the separation roller housing. Be sure the separation roller snaps into place.
7. Reinstall the separation module.

Cleaning or replacing the feed module

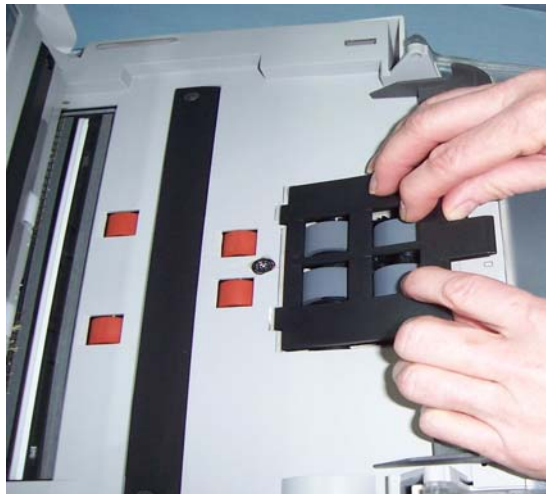
Degradation of feeder performance, multiple feeds, stoppages, etc. indicate a need to change the feed module. Certain paper types such as carbonless paper or newsprint, or failure to clean regularly, and/or use of non-recommended cleaning solvents (do not clean with alcohol) can shorten the feed module life.

For additional feed modules, see the section entitled, “Supplies and consumables” later in this chapter.

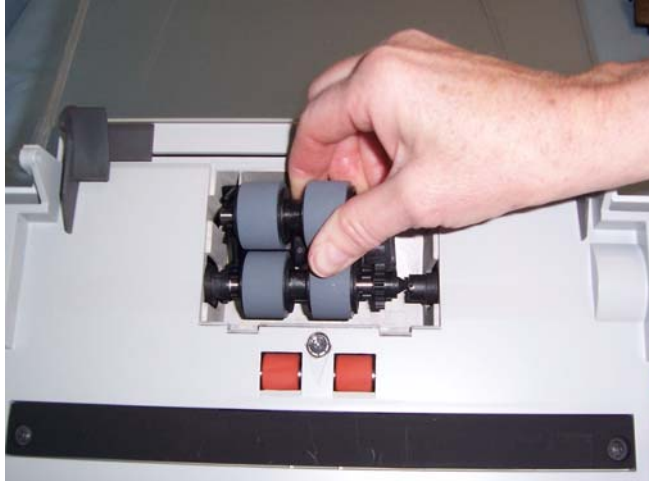
NOTE: The paper present sensor is located to the right of the feed module. Be careful not to damage the paper present sensor when removing or cleaning around the feed module.



1. Push against the raised edge of the feed module cover and lift it up and out of position.



2. Rotate the feed module upward and push it to the left to lift it out of position.



3. Manually rotate and wipe the feed module tires with a roller cleaning pad.



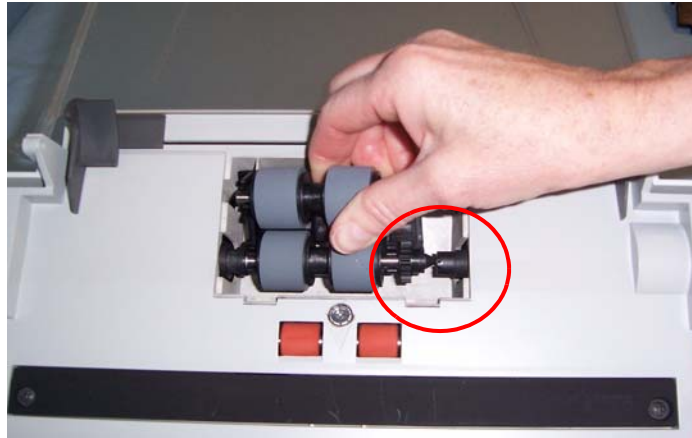
4. Inspect the feed module.

If the feed module tires show signs of wear or damage, replace the tires or the feed module. See the next section for procedures.

5. Using a vacuum or cleaning pad, remove dust and debris from the feed module area.



6. Insert the feed module by aligning the pins and pushing it toward the left to fit it into position. Be sure the gears are aligned and it snaps into place.



7. Reinstall the feed module cover by aligning the tabs in the slots and pushing the feed module cover down until it snaps into place.

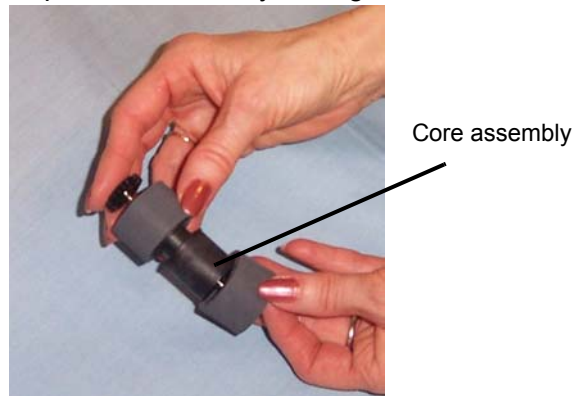
Replacing the tires on the feed module

The i1200/i1300 Series Scanners use high quality tires that were engineered to provide the ultimate in feeding reliability across the broadest range of document types, sizes and thicknesses. When the scanner is used in a normal office operating environment, the transport and tires are cleaned using approved cleaning solutions on a regular basis and the documents scanned are high quality 20 lb. bond office paper, the tires can last up to 200,000 scans on the separation module and 500,000 scans on the feed module. More difficult paper types, challenging operating environments, less frequent cleaning or cleaning the tires with alcohol or other strong solvents will cause reduced tire life. Paper types such as carbon paper and newsprint are particularly difficult and consistently making these documents a significant portion of your workload will certainly shorten tire life. When you notice degradation of feeder performance, multiple feeds, stoppages, etc., that are not resolved by following the cleaning procedures described in this chapter, you will need to change the tires.

NOTE: Tire life and performance will vary based on your unique document set.

1. Remove the feed module cover and feed module as outlined in the previous section.
2. Remove one core assembly by lifting up and out of position.

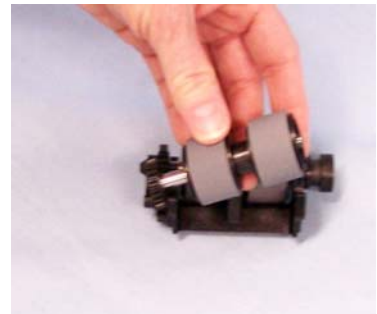
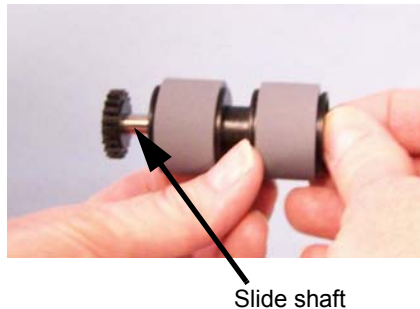
3. Replace each tire by sliding the tire off the core.



4. Install each new tire by gently pulling it over the core.

IMPORTANT: Do not overstretch the tire; it may tear.

5. Replace the core assembly in the feed module. You may need to slide the shaft so the core fits properly within the feed module housing.



6. Repeat the replacement procedure outlined above for the other core assembly.
7. Reinstall the feed module.
8. Reinstall the feed module cover by aligning the tabs in the slots and pushing the feed module cover down until it snaps into place.

Vacuuming the scanner

Before cleaning the imaging area, it is suggested that you vacuum the inside of the scanner to remove any dust and debris.

Cleaning the imaging area

1. Remove dust and debris from this area by using a Staticide wipe or a small brush. Be careful not to scratch the imaging area when cleaning.

IMPORTANT: Staticide wipes contain isopropanol which can cause eye irritation and dry skin. Wash your hands with soap and water after performing maintenance procedures. Refer to the MSDS for more information.



2. Wipe the upper and lower imaging area again with an almost-dry Staticide wipe to remove any streaks.
3. When finished, close the scanner cover.

Supplies and consumables

Contact your scanner supplier to order supplies.

| Description | CAT No. |
|--|----------|
| <i>Kodak</i> Feed Rollers for i1200/i1300 Scanner (qty. 6) | 148 4864 |
| <i>Kodak</i> Separation Module for i1200/i1300 Scanner | 173 6115 |
| <i>Kodak</i> Feed Module for i1200/i1300 Scanner | 826 9607 |
| <i>Kodak Digital Science</i> Roller Cleaning Pads | 853 5981 |
| Staticide Wipes for <i>Kodak</i> Scanners | 896 5519 |

NOTE: Items and catalog numbers are subject to change.

Accessories

- ***Kodak* White Background Accessory** — if you are scanning translucent documents, this accessory will reduce black background bleed-through while scanning which produces whiter images. CAT No. 892 7717
- ***Kodak* A4 Flatbed Accessory** — the *Kodak* A4 Flatbed is an accessory that adds scanning capability for exception documents to your *Kodak* i1200/i1300 Series Scanner. CAT No. 867 7288
- ***Kodak* Black Background Accessory for A4 Flatbed** — this flatbed cover can be used if you are scanning documents with primarily a white background and you want a defined black border on your images. CAT No. 863 6870

6 Troubleshooting

Occasionally you may encounter a situation with your scanner where it may not function properly. Refer to the information in this chapter to help you resolve the situation before calling Technical Support.

Indicator lights and error codes

The indicator light provides information on the current state of the scanner.

Steady green: scanner is ready to scan.

Steady red: indicates a scanner error, such as the scanner cover is open or a document jam.

Flashing green: waiting/Energy Star mode; scanning/busy.

Flashing red: scanner failure.

Following is a listing of the error codes that may be displayed in the function window. When an error is indicated, the indicator light will blink the same number of times as the number displayed in the function window. Therefore, if the scanner cover is open, the number “6” will be displayed in the function window and the indicator will flash red and blink six times.

| | |
|----------------|-----------------------------|
| 0 | USB cable is not connected. |
| 1 - 5, 7 and 8 | Call Service. |
| 6 | The scanner cover is open. |
| 9 | There is a document jam. |

NOTE: The numbers 1-9 may be displayed when the scanner's LED is green. These are not error codes; they are function numbers. Used together with the Start button and smart touch functionality, the function buttons can greatly improve your ease of use.

Clearing a document jam

If your scanner stops scanning due to a document jam, follow the procedures below.

IMPORTANT: Only use the tilt feature when the scanner cover is closed.

1. Open the scanner cover.

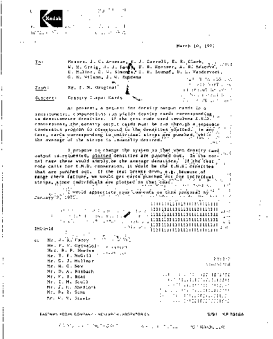


2. Remove any jammed documents from inside the scanner.
3. Close the cover.

Problem solving

Use the chart below as a guide to check possible solutions to problems you may encounter when using the *Kodak i1200/i1300 Series Scanner*.

| Problem | Possible Solution |
|---|---|
| Scanner will not scan/feed documents | <p>Make sure that:</p> <ul style="list-style-type: none"> the power cord is plugged securely into the back of scanner and the wall outlet. the power supply, green LED is lit. the power switch is on. the wall outlet is not defective (call a licensed electrician). the PC was restarted after installing the software. document(s) is making contact with the feed rollers. <p>If you are feeding a stack of documents (more than 40) at a 25 degree angle, and the transport will not start, it may be necessary to shingle the bottom documents so the feed rollers can grasp the first document and start the feeding process.</p> |
| Image quality is poor or has decreased | <ul style="list-style-type: none"> Clean the scanner. See the procedures in Chapter 5, <i>Maintenance</i>. |
| Documents are jamming or multiple documents are feeding | <p>Make sure that:</p> <ul style="list-style-type: none"> the side guides are adjusted for the width of the documents you are scanning. the output tray is adjusted for the length of the documents you are scanning. all documents meet the specifications for size, weight and type as outlined in the section entitled, "Document preparation". the scanner and tires are clean. the feed module is installed properly and securely in place. |
| No images are being displayed | <ul style="list-style-type: none"> If you are scanning one-sided documents or are using a <i>Kodak i1210</i> or <i>i1310</i> Scanner, be sure the side you want to scan is facing the input tray (not facing you). For more information, see the section entitled, "Scanning your documents" in Chapter 3. |
| Images are not being cropped correctly | <ul style="list-style-type: none"> If the cropping options are enabled, Automatically Detect and Straighten (Automatic), Automatically Detect or Border Reduction (Aggressive) and your images are not being cropped correctly, clean the imaging area. See the procedures in Chapter 5, <i>Maintenance</i> "Cleaning the imaging area". |
| Roller marks appear on the document after scanning | <p>Clean the rollers. See the procedures in Chapter 5, <i>Maintenance</i>.</p> |
| Scanner is running too slow | <p>The <i>Kodak i1200</i> and <i>i1300</i> Series Scanners are rated and designed to operate with USB 2.0, but will function in a USB 1.1 port. If you are using USB 1.1, the scanner will perform at a slower speed. Update your operating system or hardware to one that supports USB 2.0.</p> |

| Problem | Possible Solution |
|---|--|
| <p>Images have black background bleed-through</p>  | <p>When scanning translucent documents, black bleed-through may be displayed on the image. To minimize this, adjust the Contrast value or select Draft (Fixed) TWAIN or Fixed Processing in ISIS to improve the image or use the Kodak White Background Strip Accessory.</p> |

Error code listing

Following is a list of messages and corrective actions you can take if one of the following messages is encountered.

| Error | Message | Description |
|-------|--|--|
| 2 | Scanner failed initialization | |
| 3 | Multi-feed detected | A multi-feed was detected due to a length checking condition or multi-feed condition. Depending on how your scanner is set up, you may need to restart the scanner. Check your PC monitor to verify your images to be sure no documents were overlapped and need to be rescanned. |
| 4 | Multi-feed detected, transport stopped | A multi-feed was detected due to a length checking condition or multi-feed condition. Depending on how your scanner is set up, you may need to restart the scanner. Check your PC monitor to verify your images to be sure no documents were overlapped and need to be rescanned. |
| 5 | Jam in transport | A document is lodged in the scanner. Clear the paper path by opening the scanner cover, removing the lodged document, closing the scanner cover. |
| 6 | Calibration succeeded | Informational message. The scanner has been successfully calibrated. |
| 7 | Calibration failed | Informational message. A calibration was performed and failed. |
| 28 | Ultrasonics calibration succeeded | Informational message. The scanner has been successfully calibrated. |
| 29 | Ultrasonics calibration failed | Informational message. A calibration was performed and failed. |
| 33 | Call Service. | The scanner detected an error that cannot be resolved. Contact Service. |
| 44 | Refeed document set | <ul style="list-style-type: none"> The documents are too close together as they enter the scanner. Replace the separation roller tires. One or more documents that passed through the transport were not scanned. Refeed all documents for which images were not obtained. |
| 57 | Reset scanner | An error occurred that the scanner cannot resolve without recycling the power to the scanner. Turn the scanner off, then back on again. If the error persists, call Service. |

| Error | Message | Description |
|-------|---------------------|--|
| 58 | Date and time | The host is logging the current date and time. |
| 60 | Refeed document set | <ul style="list-style-type: none"> • Documents passed through the transport but no images were created. Refeed these documents and verify that the images have been captured. • The documents are too close together as they enter the scanner. Replace the separation module tires. |

Appendix A Specifications

| | |
|---|---|
| Scanner Type/Speed | <p>Kodak i1210 Scanner — a simplex scanner which provides scanning at up to 30 pages per minute in color, grayscale or black-and-white at 200 dpi.</p> <p>Kodak i1220 Scanner — a duplex scanner which provides scanning at up to 30 pages per minute in color, grayscale or black-and-white at 200 dpi.</p> <p>Kodak i1310 Scanner: simplex color scanner providing color scanning up to 30 pages per minute in black and white and grayscale scanning at up to 60 ppm at 200 dpi.</p> <p>Kodak i1320 Scanner: duplex color scanner providing color scanning up to 30 pages per minute in black and white and grayscale scanning at up to 60 ppm at 200 dpi.</p> |
| Scanning Technology | <p>CCD type</p> <p>Grayscale output bit depth is 256 levels (8-bit)</p> <p>Color capture bit depth is 48 bits (16 x 3)</p> <p>Color output bit depth is 24 bits (8 x 3)</p> |
| Output Resolutions | 75, 100, 150, 200, 240, 300, 400, 600 and 1200 dpi |
| File Format Output | Single- and multi-page TIFF, JPEG, RTF, PDF and searchable PDF |
| Scan Area | Scans up to 215 x 863 mm / 8.5 x 34 inches |
| ADF Capacity | 50 sheets |
| Recommended Daily Volume | <p>1,500 - i1200 Series Scanners</p> <p>3,000 - i1300 Series Scanners</p> |
| Illumination | Dual Fluorescent (cold cathode) |
| Electrical requirements | 100 - 240 V (international), 50/60 Hz |
| Scanner Dimensions | <p>Height: 246 mm / 9.7 in. (not including input tray)</p> <p>Width: 327.7 mm / 12.9 in.</p> <p>Depth: 162 mm / 6.3 in. (not including input tray and output tray)</p> |
| Scanner Weight | <p>i1210/i1310: 5.2 kg (11.5 lbs)</p> <p>i1220/i1320: 5.5 kg (12 lbs)</p> |
| Host Connection | USB 2.0 |
| Operating Temperature | 10°C to 35°C |
| Humidity | 10 to 85% |
| Environmental Factors | Energy Star qualified scanners |
| Power Consumption | <p>Sleep mode: <6 watts</p> <p>Running i1210/i1310: <35 watts</p> <p>Running i1220/i1320: <40 watt</p> |
| Acoustic Noise (Sound Pressure level) | <p>Operating: less than 58 dB(A)</p> <p>Standby: less than 30 dB(A)</p> |
| Bundled software | <p>Kodak Capture Software, Lite</p> <p>Nuance ScanSoft PaperPort 10 Software / for <i>Kodak</i> Scanners</p> <p>Nuance ScanSoft OmniPage Pro 14 Software / for <i>Kodak</i> Scanners</p> <p>Nuance ScanSoft PaperPort Deluxe 9 Software, Asian / for <i>Kodak</i> Scanners</p> |

Appendix B Feature Map

If you have used previous scanners from Kodak, you may be familiar with many of the image processing features already. With the new graphical user interface in the TWAIN datasource, some of the names of those features have changed. The feature map below will help you locate those “old features”.

Old Feature - Location on old GUI

New Feature - Make these selections on the Image Settings - Size tab

CROPPING FEATURES

pression | Dropout | Multifeed | Options | Setup | Info

Cropping:

Fixed To Transport

☐ Automatic Deskew

X-Offset: 0.13

Y-Offset: 0

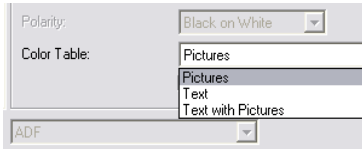
Width: 8.5

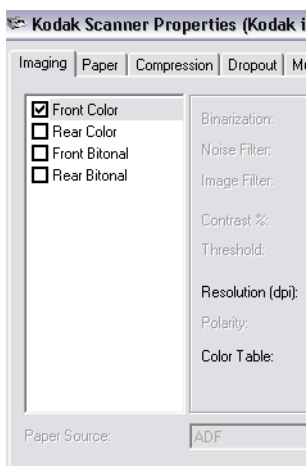
Length: 11

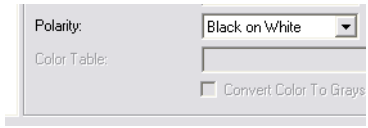
Center Frame

Rotate Frame

| | |
|------------------------|---|
| Automatic cropping | Document: Automatically Detect |
| Auto-crop deskew | Document: Automatically Detect and Straighten Image: Entire Document Border: (none) |
| Aggressive | Document: Automatically Detect and Straighten Image: Entire Document Border: Remove |
| Fixed without Overscan | Document: Manually Select Border: (none) |
| Fixed with Overscan | Document: Manually Select Border: Add |
| Relative crop | Document: Automatically Detect and Straighten Image: Part of Document |

| Old Feature - Location on old GUI | | New Feature - Make these selections on the Image Settings - General tab | |
|---|--------------------|---|--|
| COLOR TABLE FEATURES | | | |
|  | Text with Pictures | Document Type: Text with Graphics Media Type: Plain Paper | |
| | Text | Document Type: Text Media Type: Plain Paper | |
| | Pictures | Document Type: Photograph Media Type: Glossy Paper | |

| Old Feature - Location on old GUI | | New Feature - Make these selections on the Advanced tab |
|---|--|--|
| CAMERA SELECTIONS | | |
|  | Automatic Color Detect | Images per side: One-based on document content When One-based on document content is selected on the Advanced tab, the Content Settings tab will be displayed which allows more options. |
| | Dual stream (check Front Color, Rear Color, Front Bi-tonal, Rear Bi-tonal) | Images per side: Multiple and setup Images to Configure by adding two streams. When Multiple is selected on the Advanced tab, the Content Settings tab will be displayed which allows more options. |

| Old Feature - Location on old GUI | | New Feature - Make these selections on the Image Settings - Adjustments tab |
|--|----------------------------------|---|
| MISCELLANEOUS | | |
|  | Polarity (on Imaging tab) | Invert colors (for black and white images only) |

Appendix C Warranty - US and Canada only

Limited warranty for *Kodak* Scanners

Congratulations on the purchase of a *Kodak* Scanner. *Kodak* Scanners are designed to provide end users with the highest performance and reliability. All *Kodak* Scanners are covered by the following Limited Warranty.

Eastman Kodak Company provides the following Limited Warranty on *Kodak* Scanners (excluding spare parts and consumables) distributed by Kodak or through Kodak's authorized distribution channels:

Kodak warrants that a *Kodak* Scanner, from the time of sale through the Limited Warranty period applicable to the Product, will be free of defects in materials or workmanship and will conform to the performance specifications applicable for the particular *Kodak* Scanner.

All *Kodak* Scanners are subject to the Warranty Exclusions described below. A *Kodak* Scanner found to be defective or which does not conform to the product specifications will be repaired or replaced with new or refurbished product at Kodak's option.

Purchasers may determine the applicable Limited Warranty period for the *Kodak* Scanners purchased by calling (800) 822-1414, or by visiting www.Kodak.com/go/warranty or by reviewing the Limited Warranty Summary Card enclosed with the *Kodak* Scanner.

Proof of purchase is required to demonstrate eligibility for warranty service.

Warranty exclusions

Kodak's Limited Warranty does not apply to a *Kodak* Scanner that has been subjected to physical damage after purchase, caused, for example, by casualty, accident, acts of God or transportation, including (a) by a failure to properly package and ship the Scanner back to Kodak for warranty service in accordance with Kodak's then current Packaging and Shipping Guidelines, including failure to replace the shipping restraint prior to shipping, or by a failure to remove the shipping restraint prior to use; (b) resulting from the user's installation, system integration, programming, re-installation of user operating systems or applications software, systems engineering, relocation, reconstruction of data, or removal of the product or any component (including breakage of a connector, cover, glass, pins, or seal); (c) from service, modification or repair not performed by Kodak or a service provider authorized by Kodak or by tampering, use of counterfeit or other non-Kodak components, assemblies, accessories, or modules; (d) by misuse, unreasonable handling or maintenance, mistreatment, operator error, failure to provide proper supervision or maintenance, including use of cleaning products or other accessories not approved by Kodak or use in contravention of recommended procedures or specifications; (e) by environmental conditions (such as excessive heat or other unsuitable physical operating environment), corrosion, staining, electrical work external to the product or failure to provide electro-static discharge (ESD) protection; (f) by failure to install firmware updates or releases available for the product and (g) by such other supplemental exclusions published from time to time online at www.Kodak.com/go/warranty or by calling (800) 822-1414.

Kodak provides no Limited Warranty for products purchased from countries other than the United States. Purchasers of products from foreign distribution channels must seek warranty coverage, if any, through the original source of purchase.

Kodak provides no Limited Warranty for products that are purchased as part of a third party manufacturer's product, computer system or other electronic device.

Any warranty for these products is provided by the OEM (Original Equipment Manufacturer) as part of that manufacturer's product or system.

The replacement product assumes the remainder of the Limited Warranty period applicable to the defective product or thirty (30) days, whichever is longer.

Installation Warning and Disclaimer

KODAK WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE SALE, INSTALLATION, USE, SERVICING OR IMPROPER FUNCTIONING OF THIS PRODUCT, REGARDLESS OF THE CAUSE. SUCH DAMAGES FOR WHICH KODAK WILL NOT BE RESPONSIBLE, INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF REVENUE OR PROFIT, LOSS OF DATA, DOWNTIME COSTS, LOSS OF USE OF THE PRODUCT, COST OF ANY SUBSTITUTE PRODUCT, FACILITIES OR SERVICES OR CLAIMS OF CUSTOMERS FOR SUCH DAMAGES.

If there is any conflict between other sections of this appendix and the Limited Warranty, the terms of the Limited Warranty prevail.

How to obtain limited warranty service

Kodak Scanners are supplied with information on unpacking, setup, installation and operation. Careful reading of the User's Guide will answer most of the technical questions the end user might have regarding proper installation, operation and maintenance of the product. However, should additional technical support be required, you may visit our website at: www.Kodak.com/go/warranty or contact:

Kodak's Response Center
(800) 822-1414

The Response Center is available Monday – Friday (excluding Kodak holidays) 8 a.m. to 5 p.m. EST.

Before placing the call, the eligible purchaser should have the *Kodak* Scanner model number, part number, serial number and proof of purchase available. The eligible purchaser should also be prepared to provide a description of the problem.

Response Center personnel will assist the end user in resolving the problem over the phone. The end user may be asked to run some simple, self-diagnostic tests and report the resulting status and error code messages. This will assist the Response Center in determining if the problem is the *Kodak* Scanner or another component and if the problem can be resolved over the phone. If the Response Center determines a hardware problem exists that is covered either under the Limited Warranty or a purchased Maintenance Agreement, a Return Material Authorization Number (RMA) will be assigned as needed, a service request will be initiated and repair or replacement procedures will follow.

Packaging and shipping guidelines

Purchaser must ship all warranty returns in a method that guarantees full protection of the product from shipping damage. Failure to do so will void the *Kodak* Scanner warranty. Kodak advises the purchaser to keep the original box and packing materials for storing or shipping. Kodak is not responsible for issues related to shipping damage. The purchaser must return only the *Kodak* Scanner. Prior to shipment, purchaser must remove and retain all “add-on” items, (i.e. adapters, cables, software, manuals, etc.). Kodak accepts no responsibility for these items and they will not be returned with the repaired or replacement *Kodak* Scanner. All products should be returned to Kodak in the original shipping container, or an authorized packaging box for the units being returned. Purchaser must install the shipping restraint before the *Kodak* Scanner is shipped. When the original packaging is not available, contact Kodak’s Response Center at (800) 822-1414 for part numbers and replacement packaging ordering information.

Return procedure

Eligible purchasers seeking services for *Kodak* Scanners covered under this Limited Warranty must obtain a Return Material Authorization number (“RMA”) by calling (800) 822-1414 and within ten (10) business days from the date of issuance of the RMA must return the *Kodak* Scanner to the address designated in the RMA at the end user’s own expense and risk, in compliance with Kodak’s current Packaging and Shipping Guidelines.

Any defective products or parts replaced by Kodak become the property of Kodak.

Customer responsibility

BY REQUESTING SERVICE, THE ELIGIBLE PURCHASER ACKNOWLEDGES THE TERMS OF THE LIMITED WARRANTY, INCLUDING THE DISCLAIMER AND LIMITATION OF LIABILITY PROVISIONS. PRIOR TO SEEKING SERVICE, THE END USER MUST BACK-UP ANY DATA OR FILES THAT MAY BECOME DAMAGED OR LOST. KODAK IS, WITHOUT LIMITATION, NOT RESPONSIBLE FOR LOST OR DAMAGED DATA OR FILES.

Warranty Service descriptions

Eastman Kodak Company (Kodak) offers a range of service programs to support its Limited Warranty and to assist with the use and care of the *Kodak* Scanner (“Service Methods”). A *Kodak* Scanner represents an important investment. *Kodak* Scanners provide the productivity needed to stay competitive. The sudden loss of this productivity, even temporarily, could seriously affect the ability to meet commitments. Downtime can be very expensive, not just in the cost of the repair but also in time lost. To help alleviate these problems, Kodak may use one of the service methods listed below, depending upon product type, in providing service under its Limited Warranty.

Included with selected *Kodak* Scanners is a Limited Warranty Registration card and a Limited Warranty Summary card. The Limited Warranty Summary card is specific by model. The Limited Warranty Summary card contains important warranty information, including the model number and the Limited Warranty. Refer to the Limited Warranty Summary card to determine the available Service Methods applicable to the particular *Kodak* Scanner.

If the Limited Warranty Registration card or Limited Warranty Summary card cannot be located, additional information may be obtained about the product, including updated warranty and service program information and restrictions, online at www.Kodak.com/go/warranty or by phone at (800) 822-1414.

To avoid service delays, Kodak urges end users to complete and return the enclosed Limited Warranty Registration Card at the first opportunity. If you cannot locate the Limited Warranty Registration card, you may register online at www.Kodak.com/go/warranty or by phone at (800) 822-1414.

Kodak also provides a variety of service programs that may be purchased to assist with the use and care of the *Kodak* Scanner.

Kodak is committed to providing its customers with quality, performance, reliability and service under the Limited Warranty.

On-site service

For the selected *Kodak* Scanner, and after the Response Center verifies a hardware problem, a service call will be opened and logged. An Kodak Field Engineer will be dispatched to the product location to perform repair service if the product is located within the contiguous forty-eight (48) United States, in certain areas of Alaska and Hawaii, and if there are no security, safety or physical requirements that would restrict the Field Engineer's access to the scanner. For additional information on service areas, please visit our website at: www.Kodak.com/go/docimaging. On-Site Service will be provided between the hours of 8 a.m. and 5 p.m. local time, Monday through Friday (excluding Kodak holidays).

AUR

AUR may be one of the easiest and most comprehensive service offerings in the industry. In the unlikely event of a product defect, for eligible purchasers of certain *Kodak* Scanners, Kodak will replace that product within two business days.

The AUR provides advance replacement on specific failed or broken *Kodak* Scanner. To be eligible to take advantage of the AUR, the eligible purchaser must obtain an RMA number, sign an Advance Replacement Agreement and provide a credit card deposit to secure the replacement product. The RMA number should be kept in the event that the status of the replacement product needs to be checked. The eligible purchaser will be asked for the address where the replacement product is to be shipped. The eligible purchaser will also be faxed packing and shipping instructions for the malfunctioning product. The eligible purchaser will then receive a replacement product within 2 business days after the service call initiation and Kodak's receipt of the signed agreement. The malfunctioning product must be received by Kodak within ten (10) days of the end user's receipt of the replacement product or the end user's credit card will be charged the list price of the replacement product. Shipment of replacement Imaging Product will be made at Kodak's expense and choice of freight carrier. Shipments not made under Kodak's directions and choice of freight carrier may void the Limited Warranty.

Before the product is returned to Kodak, be sure to remove all options and accessories (which include power cord, documentation, etc.) that are not covered by the Limited Warranty. The box and packaging in which the replacement product was shipped must be used to return the malfunctioning product. If the malfunctioning product is not returned in the box and packaging in which the replacement product was shipped the Limited Warranty may be voided. The Return Material Authorization Number ("RMA") must be clearly marked on the outside of the box to ensure proper receipt and credit of the defective product.

Depot service

If the *Kodak* Scanner is not eligible for Advance Exchange or On-Site Service, an eligible purchaser may utilize our Depot Repair Service. The eligible purchaser will be instructed to ship the product to the nearest authorized Depot Repair Center. Product must be shipped at the eligible purchaser's risk and expense to the repair center. Before the product is returned to the repair center, be sure to remove all options and accessories (which include power cord, documentation, etc.) not covered by the Limited Warranty. All products should be returned to Kodak in the original shipping container, or in a recommended packing box. The *Kodak* Scanner must have the shipping restraint installed before it is shipped. When the original packaging is not available, contact Kodak's Response Center at (800) 822-1414, for ordering information. Eligible purchasers seeking services for *Kodak* Scanners must obtain a Return Material Authorization number ("RMA") by calling (800) 822-1414, and within ten (10) business days from the date of issuance of the RMA must return the *Kodak* Scanner to the address designated in the RMA at the end user's own expense and risk. The Return Material Authorization Number ("RMA") must be clearly marked on the outside of the box to ensure proper receipt and credit of the defective product.

Upon receipt of the product, the repair center will repair product within ten (10) business days. The repaired product will be shipped back two-day express mail at no expense to the eligible purchaser.

Important restrictions

Eligibility: The Advance Exchange Program and the Depot Service are available to eligible purchasers in the fifty (50) United States, and On-Site Service is available in the contiguous forty-eight (48) states and in certain areas of Alaska and Hawaii for products purchased from authorized distributors of Kodak. The *Kodak* Scanner will be ineligible for any service under warranty if the product falls under any of Kodak's then-current Warranty Exclusions, including a purchaser's failure to return defective products to Kodak in compliance with Kodak's then current Packaging and Shipping Guidelines. Persons are only considered "eligible purchasers" or "end users" if they originally purchased the *Kodak* Scanner for their own personal or business use, and not for resale.

Consumables: Consumables are items that wear out under normal use and must be replaced by the end user as needed. Consumables, supplies, other expendable items and those items identified as being the user's responsibility in the User's Guide are not covered under the Limited Warranty.

If any of the above excluded parts or services are required, they may be available through an authorized service provider at their hourly rates and at terms then in effect.

Any defective products or parts replaced by Kodak become the property of Kodak.

Contacting Kodak

For Information on *Kodak* Scanners:

Website: www.Kodak.com/go/docimaging

For U.S. Service, Repair and Technical Assistance by Telephone:

Telephone technical support is available Monday-Friday between the hours of 5 a.m. to 5 p.m. excluding Kodak holidays. Phone: (800) 822-1414

For Technical Documentation and FAQ's available 24 hours a day:

Website: www.Kodak.com/go/docimaging

For Service Program Information

Website: www.Kodak.com

Phone: (800) 822-1414



Eastman Kodak Company
343 State Street
Rochester, NY 14650 USA
© Kodak, 2006. TM: Kodak.
PN 9E4483

Kodak

www.kodak.com/go/docimaging

